DIEHL AKO

GB

Installation and Operating manual

PLATINUM
WebMaster

Mat. No. 736 926-AC, Version: 07/2010

PLATINUM WebMaster

Thank you for buying a PLATINUM WebMaster.

In this instruction, we have compiled all information that is important for installation and operation.

If you still have any trouble, please call our service hotline.

Service hotline

You can reach the PLATINUM service hotline as follows:

Phone +49 7522 73 777

Fax +49 7522 73 737

E-mail service.platinum@diehlako.com

You can find more service documents at www.diehl.com/photovoltaics.

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1 Symbols

1.1 Warning notices

Classification of warning notices

The warning notices differentiate between three types of dangers indicated by the following signal words:

- ➔ **Caution** warns of material damages.
- ➔ **Warning** warns of bodily injuries.
- ➔ **Danger** warns of a danger to life.

Layout of the warning notices

Signal words

Type and source of the danger!

➲ Measure to avoid the danger.

1.2 Other symbols

Instructions

Layout of instructions:

➲ Instruction to do something.

Result of the action, if necessary.

Lists

Layout of bulleted lists:

- ➔ List level 1
  - → List level 2

Layout of numbered lists:

1. List level 1
2. List level 1
   - 2.1 List level 2
   - 2.2 List level 2

2 Safety and Dangers

- Use WebMaster according to its intended use.
- Use PLATINUM WebMaster and accessories in original and technically fully intact condition without unauthorized modifications.
- Ensure that PLATINUM WebMaster is installed and serviced exclusively by qualified specialists.
- Exclusively operate the PLATINUM WebMaster with the designated supply voltage respectively (see 18 Technical Data).
- Exclusively operate PLATINUM WebMaster with the provided power supply.
- Ensure that all protection devices are fully operational.
- Prior to installation and maintenance work, ensure that PLATINUM WebMaster is de-energized.
- Ensure that regulations stipulated by trade associations and inspection authorities and agencies are observed and that the connection conditions of the relevant energy supplier or equivalent national and international rules and regulations are adhered to.
- Start up, install and mount according to the order indicated in the installation and operating manual.

3 Intended Use

PLATINUM WebMaster is designed exclusively for process monitoring of regenerative energy plants in combination with PLATINUM inverters.

4 Function

4.1 Applications

It is possible to operate PLATINUM WebMaster as follows:

- in combination with a local PC
  → Direct PC Connection
- in combination with a local PC that is integrated in a network (LAN)
  → Network connection
- on local large-format screen via HVG protocol or remote display
- via remote access
  → Connection to a remote PC via modem or internet connection
- in PV systems with up to 50 inverters
- in PV systems with up to 50 inverters via an additional PLATINUM WebMaster control center

In large-scale PV systems with more than 50 PLATINUM inverters:

➲ Form PLATINUM network bus groups of 50 devices at most and connect them to a PLATINUM WebMaster client.
➲ Connect PLATINUM WebMaster clients to PLATINUM WebMaster control center via a LAN switch.

Note

Control center and client are configured at the factory. Indicate desired option when ordering.

5 Start Up

5.1 Scope of delivery

➔ 1 PLATINUM WebMaster
➔ 1 cross-link cable
➔ 1 power supply with connector strip
➔ 1 wall bracket
➔ 1 termination plug
➔ 1 installation and operating manual

Designs

➔ PLATINUM WebMaster for DSL/LAN, order no. 713 757
➔ PLATINUM WebMaster + analog modem, order no. 720 041
➔ PLATINUM WebMaster + ISDN modem, order no. 720 042
➔ PLATINUM WebMaster + GSM modem, order no. 720 043

Accessories

➔ PLATINUM PowerCommander
  → for performance management according to EEG
➔ PLATINUM SensorKit
  → for performance control of the PV system
➔ PLATINUM SolarPortal
  → for internet-based remote monitoring of the PV system
  → comparison with current weather data
  → professional monitoring and analysis tools

5.2 System Requirements

➔ PC with installed web browser
  → Internet Explorer (Version 6 or higher)
  → Firefox (version 2.0 or higher)
➲ Ensure that JavaScript is enabled in the browser.

5.3 Switching On

➲ Connect PLATINUM WebMaster to the power supply (see 6.3 Power Supply).
➲ Connect power supply to mains.

PLATINUM WebMaster generates an acoustic signal.
PLATINUM WebMaster performs a self-test (approx. 60 s).
All LEDs light up.

When the green LED on the top of the unit blinks:

➔ PLATINUM WebMaster is ready for use.

Note *Information on LEDs on top and back of device, see 7.1 Display.*

5.4 Initial Operation

The initial setup of PLATINUM WebMasters is done at a local PC via a direct PC connection.

During the initial setup, PLATINUM WebMaster's network configuration will be adapted to your existing network.

For the first configuration of PLATINUM WebMaster:

➲ Connect PLATINUM WebMaster to a local PC via a direct PC connection (see 6.4 Direct PC Connection).

Note *The configuration of PLATINUM WebMaster is password-protected. Diehl Controls recommends that you change the password after the initial setup operation (see 12 Configuration).*

To log in:

➲ Enter the following address in your web browser:
  ➙ 192.168.1.190
➲ Click on **Login**.
➲ During the initial setup operation, enter:
  ➙ User = admin
  ➙ Password = admin

The web interface of PLATINUM WebMaster appears.

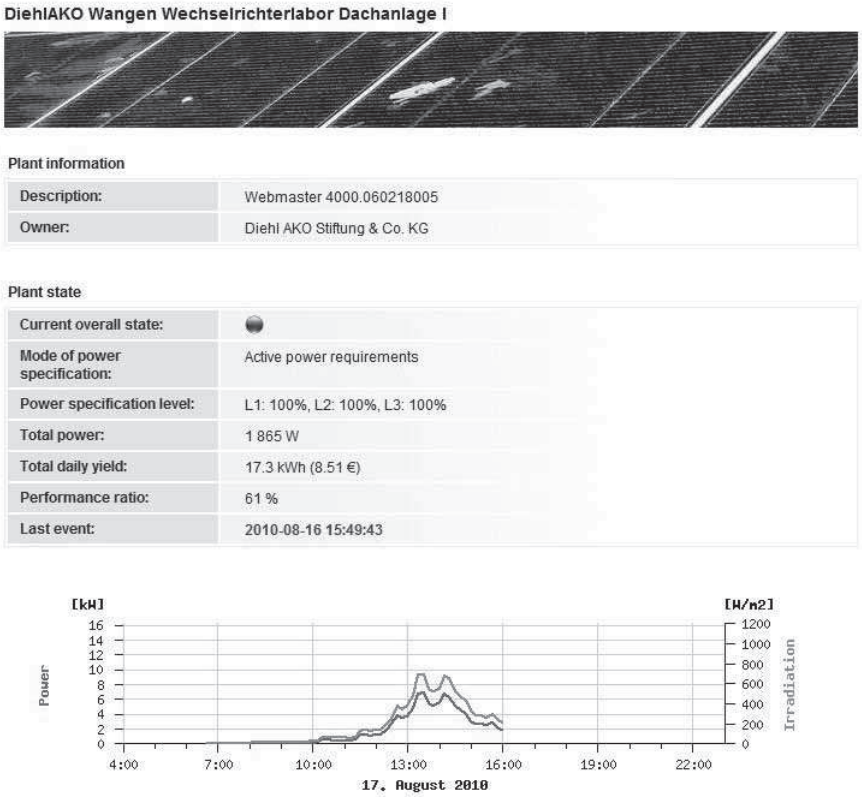


Fig. 1 Web Interface of PLATINUM WebMaster (Welcome Screen)

➲ In the menu, select:
→ Configuration → Main system → network

➲ Adapt PLATINUM WebMaster's network settings to your existing network (see 12.1 Main System).

6 Installation and Connection

6.1 Installing PLATINUM WebMaster

➲ Install PLATINUM WebMaster in:
  ➙ interiors
  ➙ electrical cabinets

For indoor installations:

➲ Use the supplied wall bracket.

Possible installation positions in mounting rail systems:

➔ hanging, connection ports facing down

For outdoor installations:

➲ Install PLATINUM WebMaster in a suitable electrical installation cabinet (IP65).

Mounting fixture

Install the mounting fixture as follows:

- ➲ Mark the mounting holes using the mounting fixture as a template.
- ➲ Drill the mounting holes and insert the screw anchors.
- ➲ Fasten the wall bracket with the screws.
- ➲ Put PLATINUM WebMaster in wall bracket.

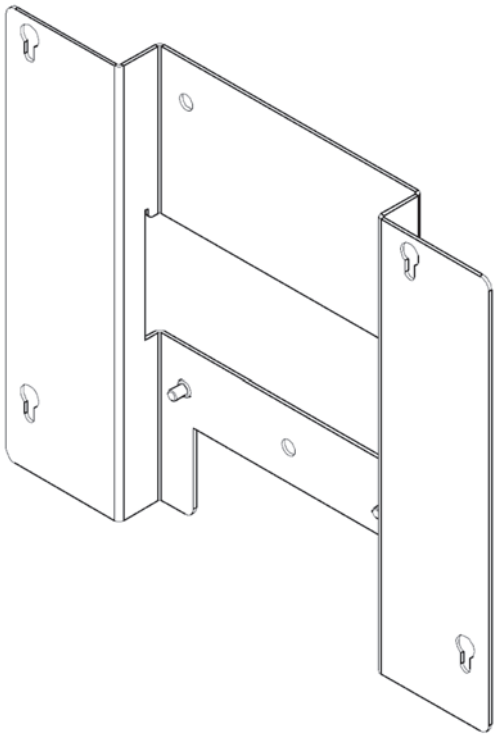


Fig. 2 Mounting fixture

6.2 Connection Ports

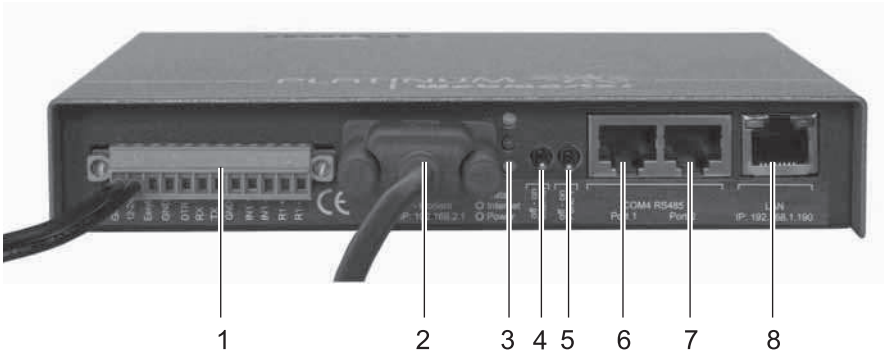


Fig. 3 Connection Ports

(1) Connector strip
(2) Serial Modem Interface
(3) Operation Display
(4) Internet Switch
(5) Function switch (no function)
(6) Connection PLATINUM network (EIA 485)
(7) Connection PLATINUM network (EIA 485)
(8) Connection network or local PC (ethernet)

Note *Information on LEDs on top and back of device, see 7.1 Display.*

Connector strip

PIN	Function	Description
GND	Power Supply	
12-24V		
EasyLan	EasyLan Bus	For connecting a PLATINUM PowerCommander (power management) and PLATINUM SensorKit.
GND		
-	(COM3) EIA 485 intrface	Optional interfaces for connecting additional devices (e.g. large display). No PLATINUM bus (EIA485) interface.
B		
A		
GND		
IN1+	potential-free inlet	For a fault indicator (switching voltage 12 – 24 VDC). Connection to relay outlet is possible.
IN1-		
OK1+	Alarm contact	For outputting an error message (switching voltage max. 48 VDC)
OK1-		

6.3 Power Supply

Caution

Damage due to incorrect installation sequence!
Before connecting to the mains:
- ➲ Ensure that the PLATINUM WebMaster is completely assembled.
- ➲ Ensure that all necessary cables are connected.

➲ Connect connector strip of supplied power supply to PLATINUM WebMaster.

Fig. 4 Mains Connection

(1) Power Supply

Note

The mains power connector is pre-wired to the power supply adaptor at the factory.

6.4 Direct PC Connection

Caution

Damage due to using incorrect cable!

➲ To connect PLATINUM WebMaster, use exclusively the provided cross-link cable with the red plug.

➲ Connect PLATINUM WebMaster to network port of a local PC using the cross-link cable.

Fig. 5 Direct PC Connection

(1) Electrical Power via Power Supply
(2) Direct connection to PC

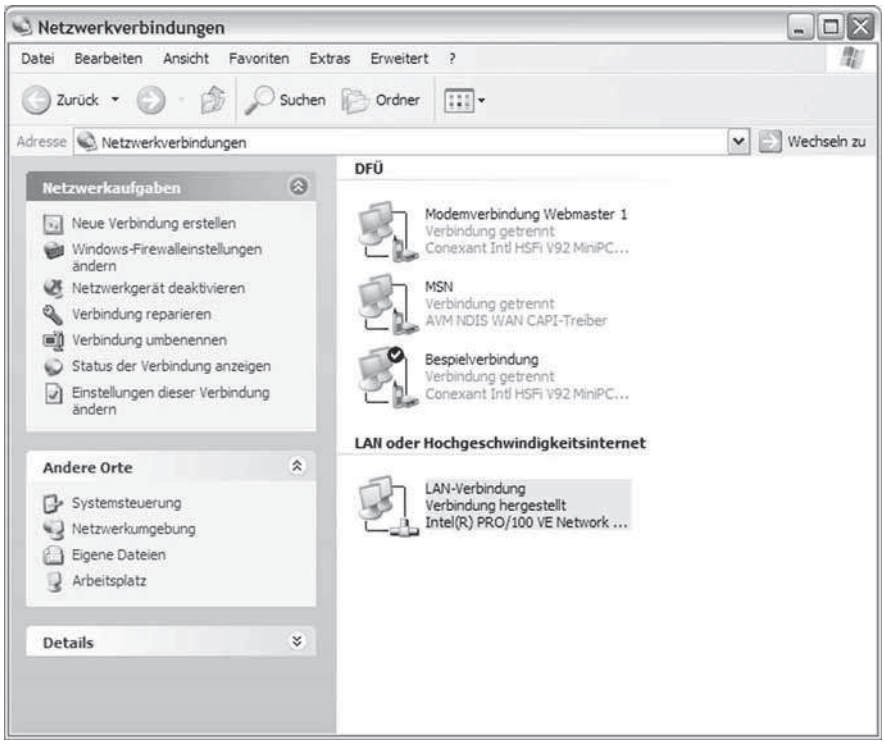
➲ Connect power supply to PLATINUM WebMaster (see 6.2 Connection Ports).
➲ Switch on PLATINUM WebMaster (see 5.3 Switching On).

The configuration of the IP addresses is the prerequisite for communication between PLATINUM WebMaster and PC. The PLATINUM WebMaster's IP address is preset at the factory. Configuring the PC´s IP address is required.

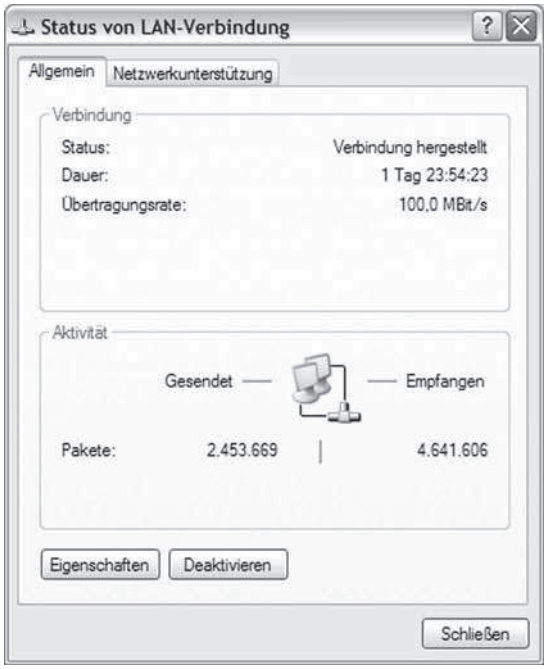
The configuration of the IP address of the PC depends on the operating system used. The following describes the configuration of the IP address on a PC running Windows XP.

Configure the IP address on the PC as follows:

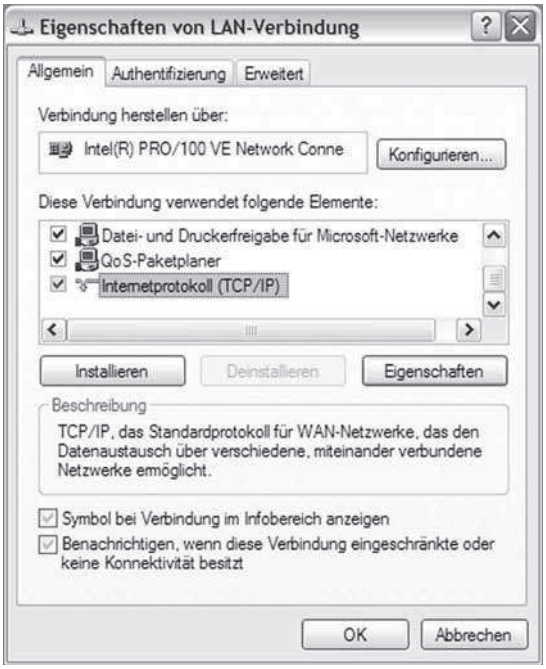
➲ In the Windows Start menu, select:
→ Start → Settings → Network and Internet Connections



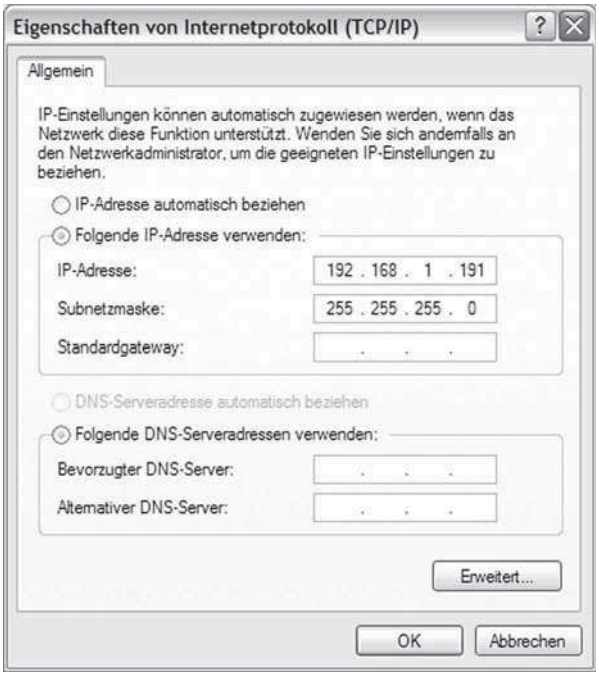
→ Local Area Connection



→ Properties



→ Internet Protocol (TCP/IP) → Properties


Eigenschaften von Internetprotokoll (TCP/IP)
Allgemein
IP-Einstellungen können automatisch zugewiesen werden, wenn das Netzwerk diese Funktion unterstützt. Wenden Sie sich andernfalls an den Netzwerkadministrator, um die geeigneten IP-Einstellungen zu beziehen.
IP-Adresse automatisch beziehen
Folgende IP-Adresse verwenden:
IP-Adresse: 192 . 168 . 1 . 191
Subnetzmaske: 255 . 255 . 255 . 0
Standardgateway:
DNS-Serveradresse automatisch beziehen
Folgende DNS-Serveradressen verwenden:
Bevorzugter DNS-Server:
Alternativer DNS-Server:
Erweitert...
OK
Abbrechen

➲ Enter the following in the Properties dialog:
  → IP address: 192.168.1.191
  → Subnet mask: 255.255.255.0
➲ Click OK to confirm entries.
➲ Close the Properties dialog.

6.5 Local Network (LAN) Connection

Note

Before connecting PLATINUM WebMaster to a local network (LAN), configure a suitable IP address via direct PC connection (see 12.1 Main System).

➲ Connect PLATINUM WebMaster to network with patch cable.

Fig. 6 Network Connection

(1) Power Supply
(2) Connection to Local Network or Local PC (LAN)

To configure PLATINUM WebMaster for a local network (LAN) see 12 Configuration.

6.6 Remote Access

Remote access allows connecting a PC that is not part of the PV system to PLATINUM WebMaster. Remote PC and PLATINUM WebMaster are connected to the telephone network via modem or broadband router.

Possible modem connections

The following combinations are possible for connecting a modem to PLATINUM WebMaster or PC:

PLATINUM WebMaster	PC	Condition
ISDN Modem	ISDN Modem	Protocol X.75
Analog Modem	ISDN Modem	ISDN Modem is capable of Analog emulation Only possible if ISDN-Modem über Analog-Emulation verfügt.
Analog Modem	Analog Modem	
GSM modem	Analog Modem	

Note

For other combinations it is necessary to consult the PLATINUM service department.

Diehl Controls recommends that PLATINUM WebMaster be connected to a telephone line with a separate telephone number.

Access to a PLATINUM WebMaster with analog modem via a PC with DSL connection is not possible.

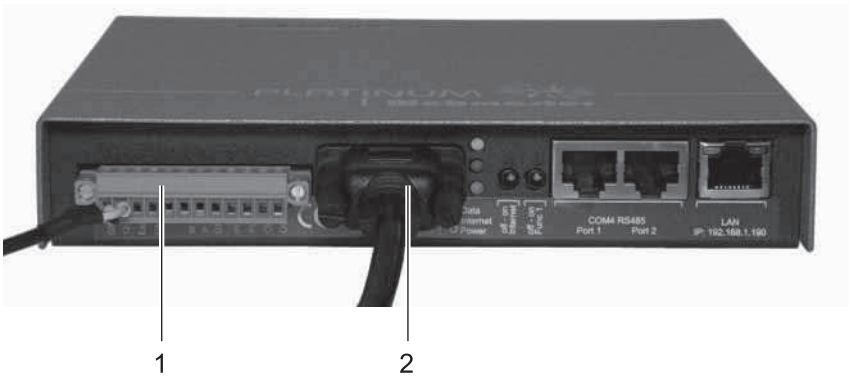


Fig. 7 Modem Connection

(1) Power Supply
(2) Connection to Modem

Possible connections Broadband Internet

The connection is usually established via routers with LAN connections. Setting see 12.1 Main System.

Enregistring the router as a gateway in the PLATINUM WebMaster is necessary (see 12.1 Main System).

In order to reach PLATINUM WebMaster from a remote PC via internet, a URL address is required. For private individuals, a certain number of dynamic addresses is available for free. There are several providers, e. g. www.dyndns.com.

A DynDNS service will assign the router a definite name (URL). The router set accordingly will transmit its IP address to the DynDNS service at regular intervals and will thus be available. Diehl Controls recommends registering at a DynDNS service.

Establishing a modem connection

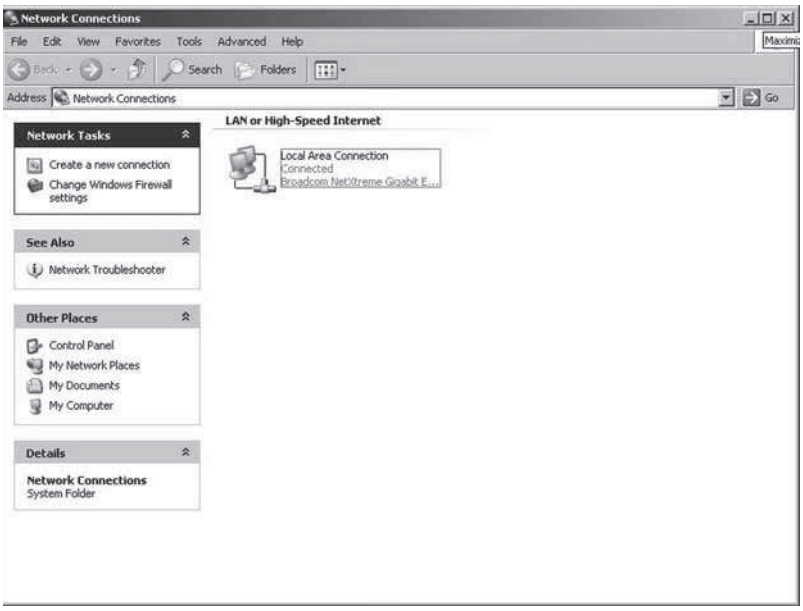
Note

The remote connection on the remote PC is configured with the installed operating system. The method described below applies to the Windows ® XP operating system.

Establish modem connection on remote PC as follows:

- ➲ Set switch Internet on PLATINUM WebMaster to On.
- ➲ Connect modem to PLATINUM WebMaster.
- ➲ Connect the power supply to the mains.
- ➲ Connect the modem to the telephone line.

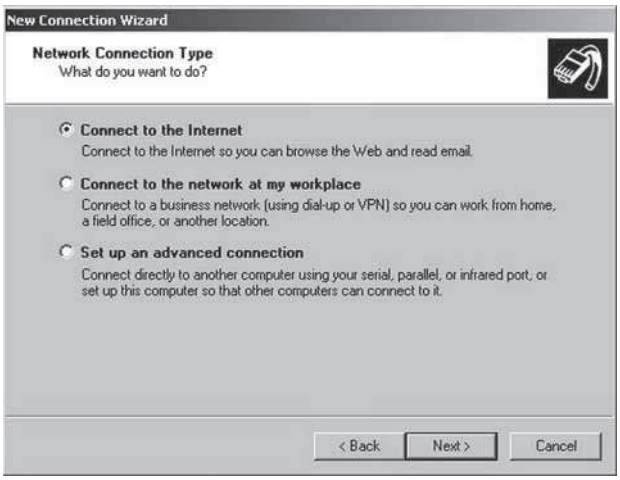
➲ In the Windows Start menu, select:
Start → Settings → Network and remote data transmission connections



➲ Click on **New Network Connections**.

New Connection Wizard
Welcome to the New Connection Wizard
This wizard helps you:
• Connect to the Internet.
• Connect to a private network, such as your workplace network.
To continue, click Next.
< Back
Next >
Cancel

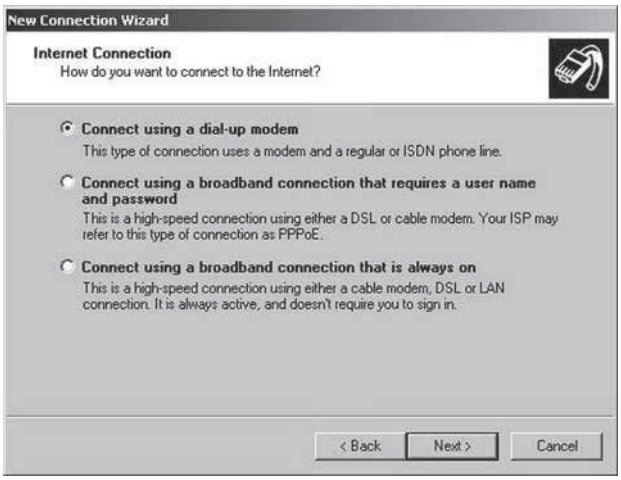
➲ Click on **Next**.


New Connection Wizard
Network Connection Type
What do you want to do?
Connect to the Internet
Connect to the Internet so you can browse the Web and read email.
Connect to the network at my workplace
Connect to a business network (using dial-up or VPN) so you can work from home, a field office, or another location.
Set up an advanced connection
Connect directly to another computer using your serial, parallel, or infrared port, or set up this computer so that other computers can connect to it.
< Back
Next >
Cancel

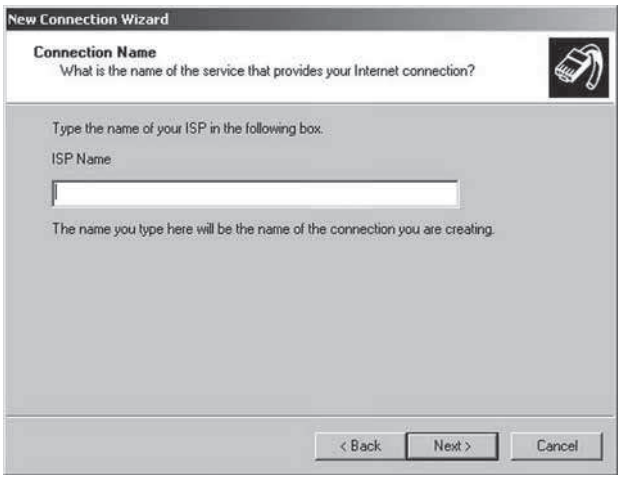
➲ Select **Connect to the internet**.
➲ Click on **Next**.

New Connection Wizard
Getting Ready
The wizard is preparing to set up your Internet connection.
How do you want to connect to the Internet?
Choose from a list of Internet service providers (ISPs)
Set up my connection manually
For a dial-up connection, you will need your account name, password, and a phone number for your ISP. For a broadband account, you won't need a phone number.
Use the CD I got from an ISP
< Back
Next >
Cancel

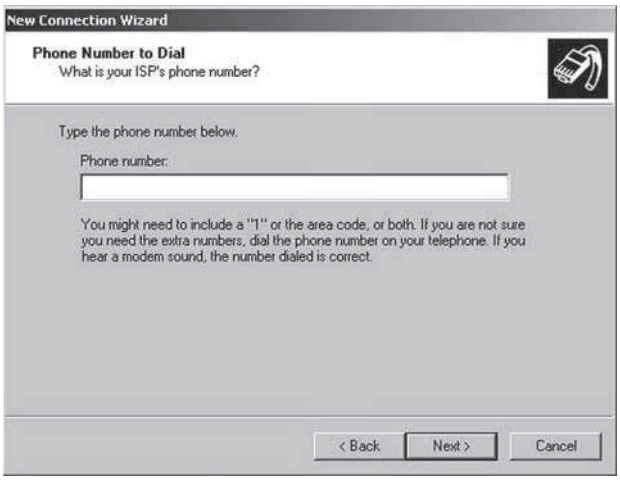
➲ Select **Set up my connection manually**.
➲ Click on **Next**.


New Connection Wizard
Internet Connection
How do you want to connect to the Internet?
Connect using a dial-up modem
This type of connection uses a modem and a regular or ISDN phone line.
Connect using a broadband connection that requires a user name and password
This is a high-speed connection using either a DSL or cable modem. Your ISP may refer to this type of connection as PPPoE.
Connect using a broadband connection that is always on
This is a high-speed connection using either a cable modem, DSL or LAN connection. It is always active, and doesn't require you to sign in.
< Back
Next >
Cancel

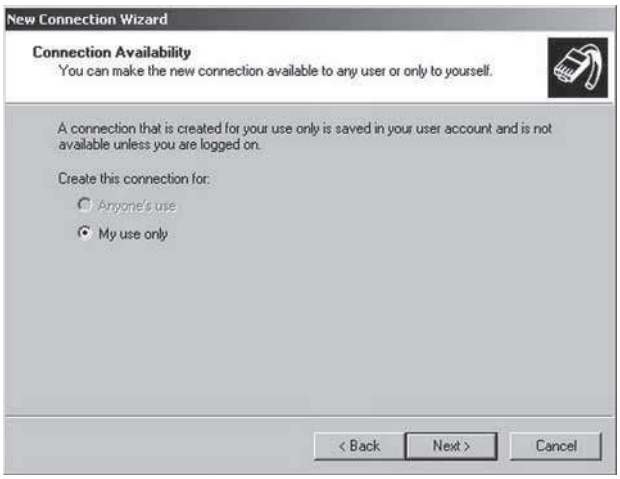
➲ Select **Connect using a dial-up modem**.
➲ Click on **Next**.


New Connection Wizard
Connection Name
What is the name of the service that provides your Internet connection?
Type the name of your ISP in the following box.
ISP Name
The name you type here will be the name of the connection you are creating.
< Back
Next >
Cancel

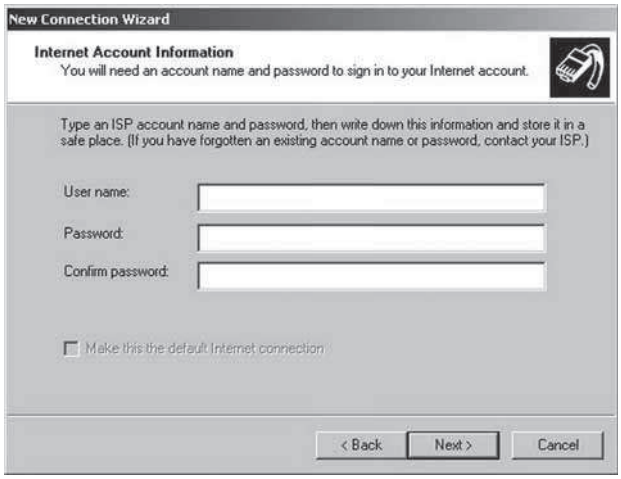
➲ Enter the internet provider.
➲ Click on **Next**.


New Connection Wizard
Phone Number to Dial
What is your ISP's phone number?
Type the phone number below.
Phone number:
You might need to include a "1" or the area code, or both. If you are not sure you need the extra numbers, dial the phone number on your telephone. If you hear a modem sound, the number dialed is correct.
< Back
Next >
Cancel

➲ Enter dial number of modem connection on PLATINUM WebMaster.
➲ Click on **Next**.


New Connection Wizard
Connection Availability
You can make the new connection available to any user or only to yourself.
A connection that is created for your use only is saved in your user account and is not available unless you are logged on.
Create this connection for:
Anyone's use
My use only
< Back
Next >
Cancel

➲ Select **My use only**.
➲ Click on **Next**.


New Connection Wizard
Internet Account Information
You will need an account name and password to sign in to your Internet account.
Type an ISP account name and password, then write down this information and store it in a safe place. (If you have forgotten an existing account name or password, contact your ISP.)
User name:
Password:
Confirm password:
Make this the default Internet connection
< Back
Next >
Cancel

- ➲ Enter usename.
- ➲ Enter password.
- ➲ Click on **Next**.
- ➲ Click on **Finish**.

A new modem connection for the PLATINUM WebMaster is established.

Set up modem in web surface of PLATINUM WebMaster (see 12.1 Main System).

Set up DSL router

Caution

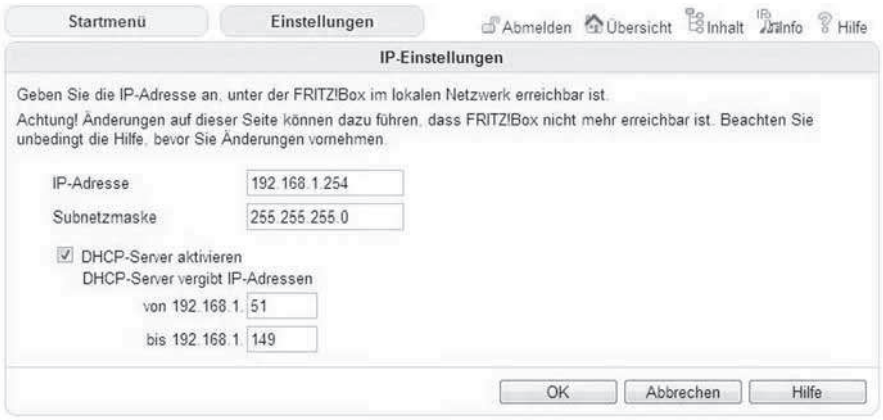
Loss of data due to incorrect configuration!

- ➲ Ensure that the DSL router's configuration is performed by qualified persons exclusively.

Set up DSL router on PLATINUM WebMaster as follows:

- ➲ Set switch Internet on PLATINUM WebMaster to On.
- ➲ Set the same subnet for DSL router and PLATINUM WebMaster.
- ➲ Adapt PLATINUM WebMaster's IP address to DSL router's assignment range.
  If necessary, request data from network administrator.
- ➲ Ensure that IP addresses are assigned only once within a network.

The following example shows the assignment range of a DSL router (Fritz!Box). **Example**



IP address positions 1 – 3:

➔ Indication of subnet

IP address position 4:

➔ Assignment range of 254 addresses
  ➞ 51 – 149 assigned dynamically by DSL router
  ➞ in the example, 254 is reserved for the DSL router

Thus, in the example it is possible to definitely assign the IP addresses 1 – 50, 150 – 254.

Before PLATINUM WebMaster is accessible from the external PC it is necessary to configure Port Forwarding and DynDNS service. **Note**

Seting up GSM modem

Set up GSM modem as follows:

➲ Set switch Internet on PLATINUM WebMaster to On.
➲ Ensure that data services are activated at the mobile phone service provider's.
➲ Insert SIM card into GSM modem.
➲ Connect antenna and power supply to modem.
Observe modem's operating manual.
➲ Use serial cable to connect GSM modem to PLATINUM WebMaster.
➲ Set up GSM modem in web surface of PLATINUM WebMaster (see 12.1 Main System).

Starting remote access

Modem connection or GSM modem connection

For modem connection or GSM modem connection on remote PC:

➲ Start modem connection or GSM modem connection to PLATINUM WebMaster.

After successful connection on remote PC:

➲ Enter the following address in your web browser:
➔ 192.168.2.1

The web interface of PLATINUM WebMaster appears.

Broadband internet

For broadband internet:

➲ Enter URL address, DynDNS and the PLATINUM WebMaster's port in the web browser.

The web interface of PLATINUM WebMaster appears.

6.7 Connection to PLATINUM network (EIA 485)

- ➲ Use patch cable to connect PLATINUM WebMaster to PLATINUM network (EIA 485).
- ➲ Use exclusively patch cables meeting the following specifications:
  - ➙ at least CAT 4 network cable
  - ➙ Capp.D. Unitronic Li2YCY (TP=twisted pair) 1x2x0.50 inside
  - ➙ Li2YCYv (TP) 1x2x0.50 outside (in the ground)
- ➲ Connect termination plug to free connector of PLATINUM network (EIA 485) **2** or **3**.

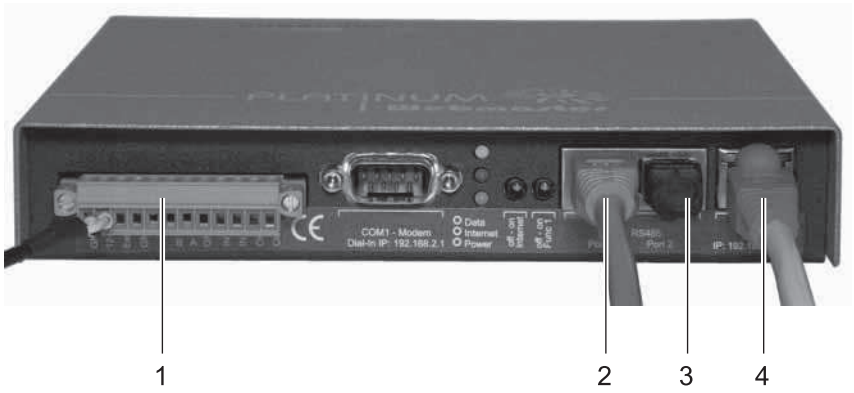


Fig. 8 Inverter Network Connection

(1) Power Supply
(2) Connection to PLATINUM network (EIA 485)
(3) Termination plug
(4) Connection to Network (LAN) or Local PC

For PLATINUM C central inverters:

- ➲ Connect isolation to central inverter display on one side.

6.8 Alarm Contact

The potential-free alarm contact allows outputting alarms to external devices, e. g. a signal lamp or horn.

When an alarm has been triggered:

➔ Alarm is displayed on the start screen of the web interface
➔ Alarm contact is closed

Alarm contact opens after:

➔ clicking **Alarm off** on the start screen of the web interface
➔ the alarming period is over

➲ Information about the reason for the alarm see 10 Monitoring.
➲ Alarm contact configuration see 12 Configuration.

6.9 Connecting large-scale PV systems

A LAN switch is required for connecting the PLATINUM WebMaster in large-scale PV systems.

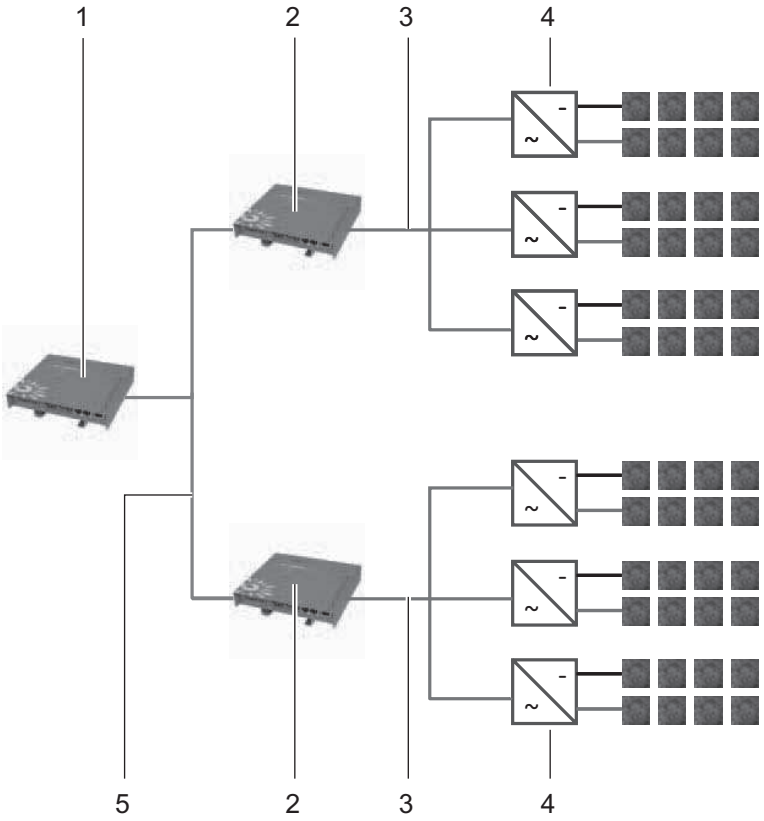


Fig. 9 Connecting large-scale PV systems

(1) Control Center PLATINUM WebMaster
(2) PLATINUM WebMaster Client
(3) PLATINUM network
(4) Up to 50 inverters
(5) Local network (via LAN switch)

The number of the LAN switch's inlets depends on the number of WebMaster clients. It is possible to connect ten PLATINUM WebMaster clients to a PLATINUM WebMaster control center.

Note

Control center and client are configured at the factory. Indicate desired option when ordering.

6.10 Connection to large-format display

It is possible to connect PLATINUM WebMaster to a large-format display.

- ➲ Ensure that large-format display supports HVG or RICO protocol.
- ➲ Ensure that large-format display supports EIA 485 communication as serial interface.
- ➲ Connect large-scale display to PLATINUM WebMaster's terminal strip (connector COM3 RS485) with double-wire cable.
  Observe wiring diagram.

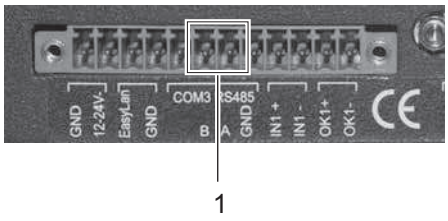


Fig. 10 Terminal strip PLATINUM WebMaster

(1) Connectors for large-format display

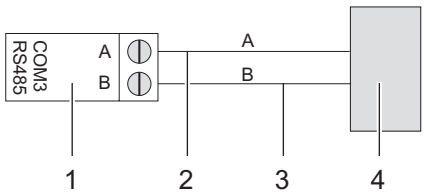


Fig. 11 Wiring diagram large-format display

(1) Connector PLATINUM WebMaster (COM3 RS485)
(2) Data+ (A)
(3) Data- (B)
(4) Connector large-format display

Connection as remote display

For remote displays, a serial-ethernet converter (RS485), e. g. Korenix JetPort 5601, is used.

Connection example (IP address exemplary):

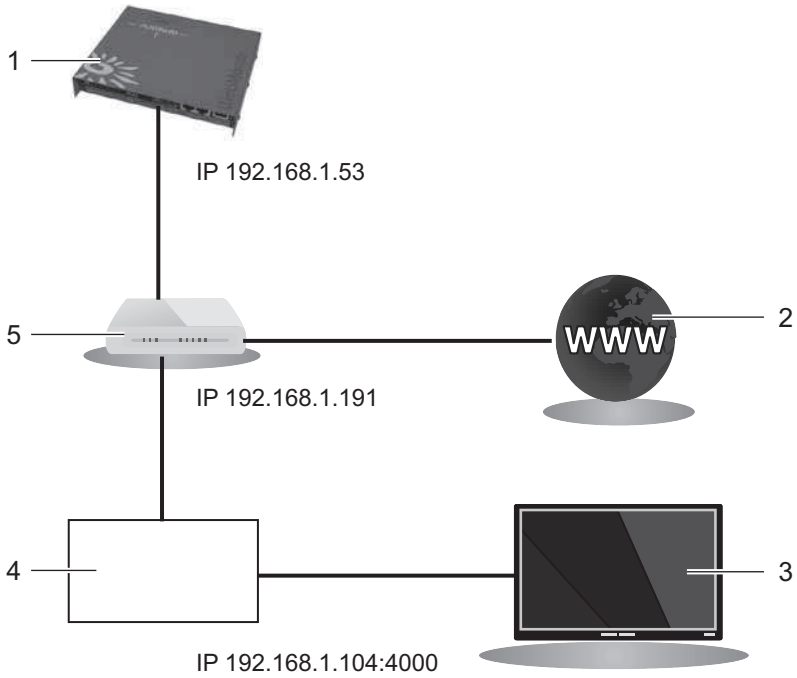


Fig. 12 Showcase connection on remote display

(1) PLATINUM WebMaster
(2) Internet
(3) Large display
(4) Serial ethernet converter (RS485)
(5) Router

PLATINUM WebMaster supports the display of the following data:

- ➔ Current power in kW
  - → for display type HVG up to 99.99 kW
  - → for display type HVG with nominal power >100 kW through 9,999.99 kW
- ➔ Daily power in kWh
- ➔ Daily power in Wh
- ➔ Total yield up to 999,999 kWh

PLATINUM WebMaster
Installation and Connection

To connect PLATINUM WebMaster to remote display:

➲ Set required network settings in PLATINUM WebMaster.
➲ Observe operating manual for serial ethernet converter (RS485).

Note *Information about the network settings is provided by the administrator of your local network.*

7 Operation

7.1 Display

Top of Unit

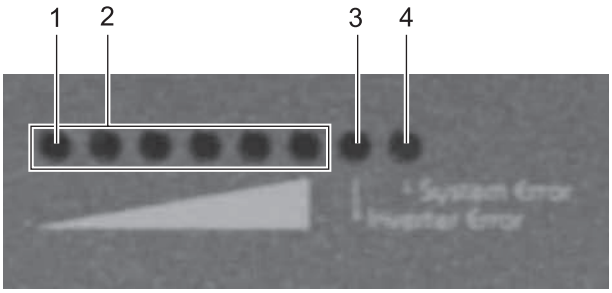


Fig. 13 Top of Unit

(1) Power LED
(2) Current Power LED
(3) Inverter Communication Error LED
(4) LED Malfunction PLATINUM WebMaster

When Power LED **1** is blinking:

➔ PLATINUM WebMaster is operating.

➔ Power $< \frac{100\%}{6}$

When Power LED **2** is on:

➔ Power $> \frac{100\%}{6}$

When Current Power LED **2** is blinking:

➔ The power output of the inverter is low.

When Inverter Communication Error LED **3** is on:

➔ There is a problem when communicating with the inverter.

If PLATINUM WebMaster Malfunction LED **4** is on:

➔ Operating problem with PLATINUM WebMaster.

Back of Unit

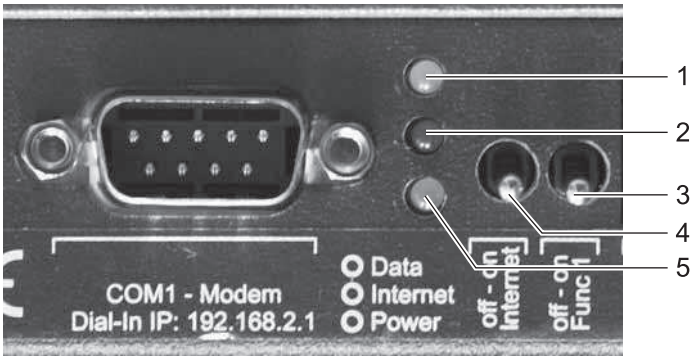


Fig. 14 Back of Unit

(1) Data LED
(2) Dial Out LED
(3) Switch Func (no function)
(4) Internet Switch
(5) Power LED

LED	Color	Function
Data	Yellow	Serial/modem communication active.
Dial out	red	Modem connects to Internet automatically.
Power	green	PLATINUM WebMaster is switched on.

Switch	Position	Function
Internet	On	Modem connects to Internet automatically.
	Off	Modem does not connect to Internet automatically.

8 Web Interface

The web interface allows you to do the following:

- ➔ Check system events and configure monitoring options (see 10 Monitoring)
- ➔ View readings and states for the PV system (see 11 Reporting)
- ➔ Verify and change the configuration (see 12 Configuration)
- ➔ Download system information details from a PC via a direct connection (see 13 Download)
- ➔ Display alarms

8.1 User Rights

Access to web interface and PLATINUM WebMaster's settings is secured by several access levels.

Access levels:

- ➔ User
  - → Enables access to system state, evaluations, monitoring and download.
- ➔ Admin
  - → Enables access to all areas of PLATINUM WebMasters.
  - → Allows to change settings.

Note

*Upon delivery, the default administrator password is **admin**, the user password is **user**.*

8.2 Calling up Web Interface

To call up PLATINUM WebMaster's web interface:

➲ Enter IP address of PLATINUM WebMaster in your web browser.

Note *Upon delivery, PLATINUM WebMaster's default IP address is 192.168.1.190.*

Bei Modemverbindung:

➲ Ensure that modem on remote PC is configured and accessible.
➲ Enter 192.168.2.1 in the web browser.

The web interface of PLATINUM WebMaster appears.

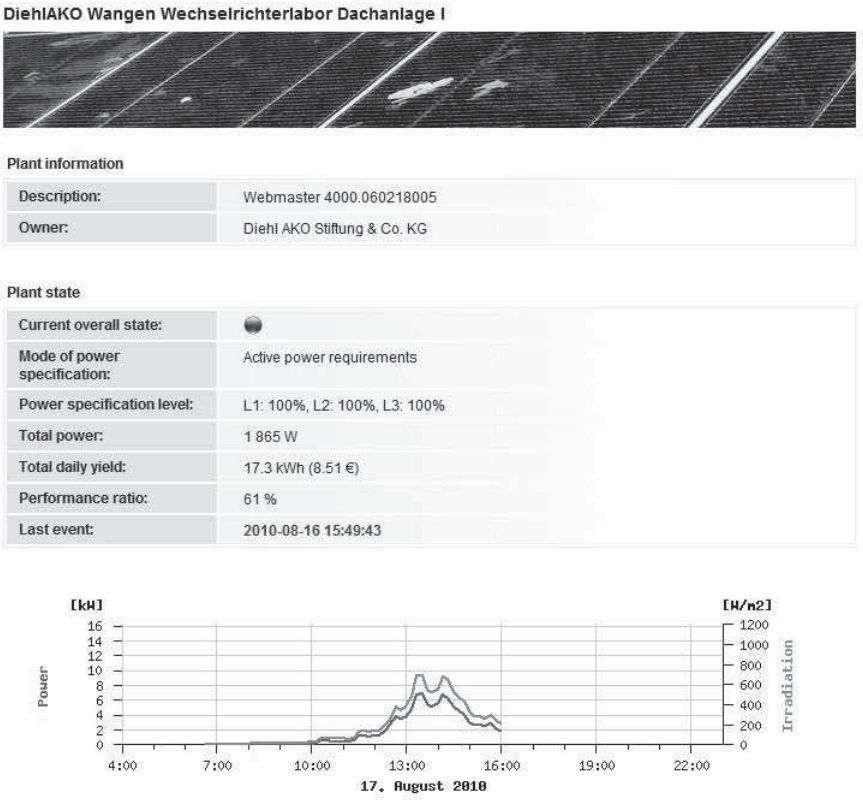


Fig. 15 Installing PLATINUM WebMaster's web interface

Note *Diehl Controls recommends bookmarking the address of the web interface.*

A login is required to be able to use all functions.

10 min after the last entry with mouse or keyboard, PLATINUM WebMaster will log out automatically.

Language

To select the language of the web interface:

➲ Click on the flag symbol.

Note *The language is selected for one current session. After the session, PLATINUM WebMaster will replace the language with the system language.*

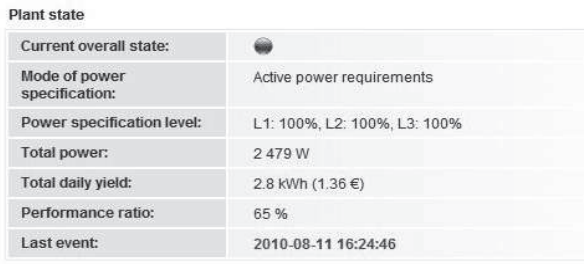
System Details

Shows description of and information on the system.

Note *It is possible to change the description and the information on the system user and to add a picture (see 12 Configuration).*

Plant state

Displays the current state of the system.



➔ Current overall state
  ➙ Displays the overall state of the system.
  ➙ red: More than 30% of the inverters are not feeding in or are malfunctioning.
  ➙ yellow: At least 1 inverter is malfunctioning.
  ➙ green: All inverters are available and feeding in.

➔ Mode of power specification and power specification level (exclusively with PLATINUM PowerCommander connected)
  ➙ shows which active power specified by the energy provider is being fed in.
  ➙ active power split to all three phases

➔ Total power
  ➙ Total power of the system

➔ Total daily yield
  ➙ Total daily yield in kWh
  ➙ Rebate according to setting

➔ Performance ratio
  ➙ Efficiency of the solar system
  ➙ Appears exclusively if the irradiation sensor is connected.

➔ Last event
  ➞ Displays the date and time of the last event.
➔ Alarm is switched on. Please acknowledge:
  ➞ Click **Alarm off** to acknowledge alarm and open alarm contact.

➲ Information about the reason for the alarm see 10 Monitoring.
➲ Alarm contact configuration see 12 Configuration.

9 Plant state

9.1 Inverter

Displays current state of solar system as well as power or error status of inverters.

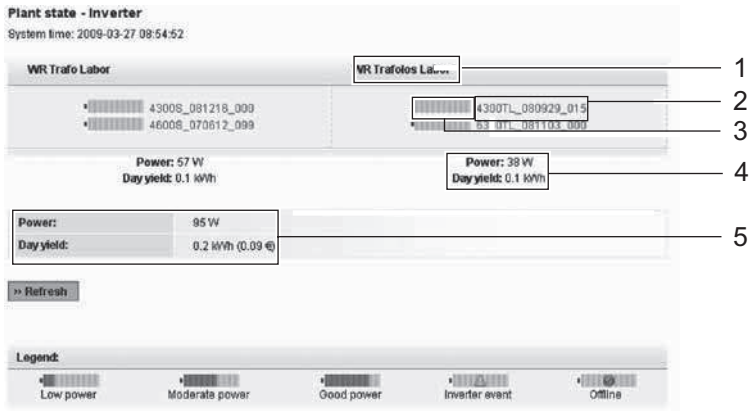


Fig. 16 System status of inverter

(1) Inverter Group
(2) Inverter Name
(3) Current inverter power
(4) Current power and daily yield of the inverter group
(5) Current total power and total yield of the system

To refresh the status:

➲ Click **Refresh**.

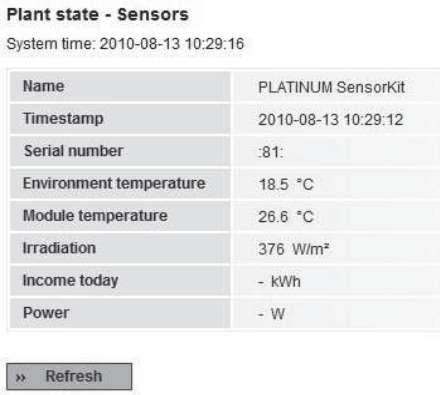
To view detailed information for an inverter:

➲ Click on the name of the desired inverter.

9.2 Sensors

Shows current data of sensors connected to PLATINUM WebMaster.

Note *For information on connection and configurations, observe installation and operating manual for PLATINUM SensorKit.*



To refresh the status:

➲ Click **Refresh**.

10 Monitoring

The following monitoring options are available:

- ➔ Configuration events
  - → Displays changes in the configuration of PLATINUM WebMasters.
- ➔ System event
  - → Displays events reported by PLATINUM WebMaster.
- ➔ System Information
  - → Displays information reported by PLATINUM WebMaster.
- ➔ Inverter event
  - → Displays events reported by the inverter.
- ➔ No daily yield
  - → Indicates that an inverter has not fed any energy during the course of a day.
- ➔ Communication Error
  - → Indicates that the connection to an inverter is faulty.
- ➔ Low daily yield
  - → Indicates that an inverter is feeding too little energy during the course of a day compared to other inverters.
- ➔ Inverter failure
  - → Indicates that an active inverter is not responding to the PLATINUM WebMaster's queries during the course of a day.
- ➔ Perfomance management
  - → Shows the performance signals sent to the system by the energy provider via PLATINUM PowerCommander and PLATINUM WebMaster.
  - → Shows the last three data sets.

Note

For information on connection and configurations, observe installation and operating manual for PLATINUM PowerCommander.

PLATINUM WebMaster
Monitoring

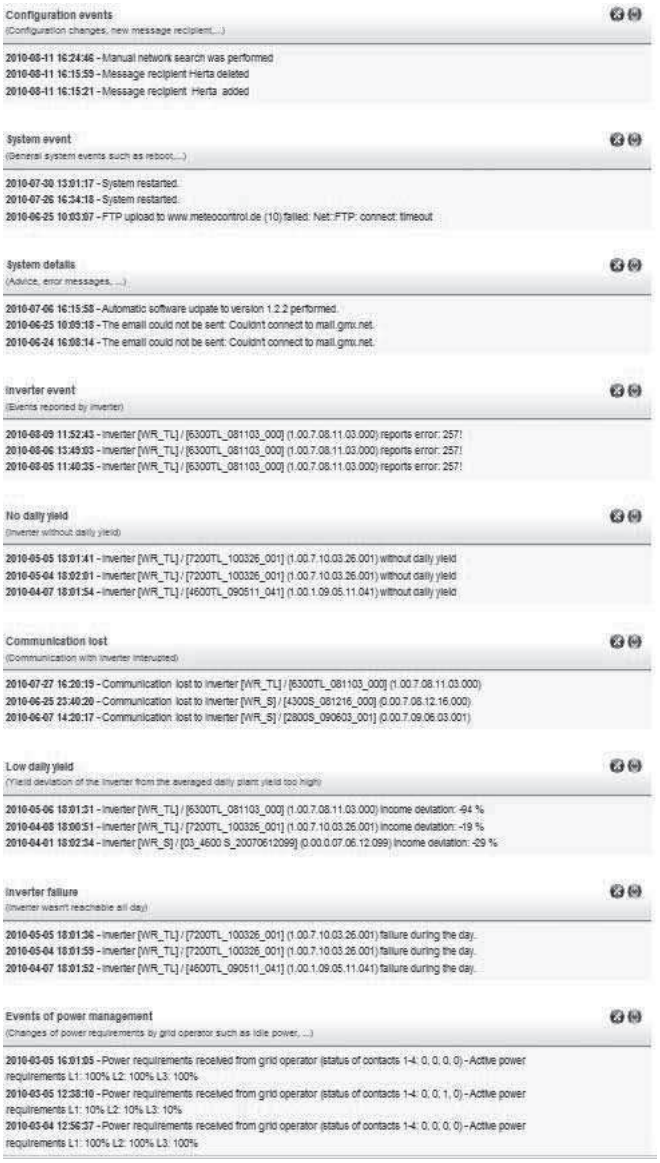

Configuration events
(Configuration changes, new message recipient,...)
2010-08-11 16:24:46 - Manual network search was performed
2010-08-11 16:15:59 - Message recipient Herta deleted
2010-08-11 16:15:21 - Message recipient Herta added
System event
(General system events such as reboot,...)
2010-07-30 13:01:17 - System restarted.
2010-07-26 16:34:18 - System restarted.
2010-06-25 10:03:07 - FTP upload to www.meteocontrol.de (10) failed: Net::FTP: connect: timeout
System details
(Advice, error messages, ...)
2010-07-06 16:15:58 - Automatic software update to version 1.2.2 performed.
2010-06-25 10:05:18 - The email could not be sent: Couldn't connect to mail.gmx.net.
2010-06-24 16:08:14 - The email could not be sent: Couldn't connect to mail.gmx.net.
Inverter event
(Events reported by inverter)
2010-08-09 11:52:43 - Inverter [WR_TL] / [6300TL_081103_000] (1.00.7.08.11.03.000) reports error: 257!
2010-08-06 13:49:03 - Inverter [WR_TL] / [6300TL_081103_000] (1.00.7.08.11.03.000) reports error: 257!
2010-08-05 11:40:35 - Inverter [WR_TL] / [6300TL_081103_000] (1.00.7.08.11.03.000) reports error: 257!
No daily yield
(Inverter without daily yield)
2010-05-05 18:01:41 - Inverter [WR_TL] / [7200TL_100326_001] (1.00.7.10.03.26.001) without daily yield
2010-05-04 18:02:01 - Inverter [WR_TL] / [7200TL_100326_001] (1.00.7.10.03.26.001) without daily yield
2010-04-07 18:01:54 - Inverter [WR_TL] / [4600TL_090511_041] (1.00.1.09.05.11.041) without daily yield
Communication lost
(Communication with inverter interrupted)
2010-07-27 16:20:19 - Communication lost to inverter [WR_TL] / [6300TL_081103_000] (1.00.7.08.11.03.000)
2010-06-25 23:40:20 - Communication lost to inverter [WR_S] / [4300S_081216_000] (0.00.7.08.12.16.000)
2010-06-07 14:20:17 - Communication lost to inverter [WR_S] / [2800S_090603_001] (0.00.7.09.06.03.001)
Low daily yield
(Yield deviation of the inverter from the averaged daily plant yield too high)
2010-05-06 18:01:31 - Inverter [WR_TL] / [6300TL_081103_000] (1.00.7.08.11.03.000) income deviation: -94 %
2010-04-08 18:00:51 - Inverter [WR_TL] / [7200TL_100326_001] (1.00.7.10.03.26.001) income deviation: -19 %
2010-04-01 18:02:34 - Inverter [WR_S] / [03_4600 S_20070612099] (0.00.0.07.06.12.099) income deviation: -29 %
Inverter failure
(Inverter wasn't reachable all day)
2010-05-05 18:01:36 - Inverter [WR_TL] / [7200TL_100326_001] (1.00.7.10.03.26.001) failure during the day.
2010-05-04 18:01:59 - Inverter [WR_TL] / [7200TL_100326_001] (1.00.7.10.03.26.001) failure during the day.
2010-04-07 18:01:52 - Inverter [WR_TL] / [4600TL_090511_041] (1.00.1.09.05.11.041) failure during the day.
Events of power management
(Changes of power requirements by grid operator such as idle power, ...)
2010-03-05 16:01:05 - Power requirements received from grid operator (status of contacts 1-4: 0, 0, 0, 0) - Active power requirements L1: 100% L2: 100% L3: 100%
2010-03-05 12:38:10 - Power requirements received from grid operator (status of contacts 1-4: 0, 0, 1, 0) - Active power requirements L1: 10% L2: 10% L3: 10%
2010-03-04 12:56:37 - Power requirements received from grid operator (status of contacts 1-4: 0, 0, 0, 0) - Active power requirements L1: 100% L2: 100% L3: 100%

Fig. 17 Monitoring

Note *Overview shows the last 3 events of a category.*

Buttons (Only visible after login.):

➔ **bold**
  ➞ Display all listed events.

➔
  ➞ Modify monitoring option settings.

➔
  ➞ Disable monitoring. (Only visible if monitoring is enabled.)

➔
  ➞ Enable monitoring. (Only visible if monitoring is disabled.)

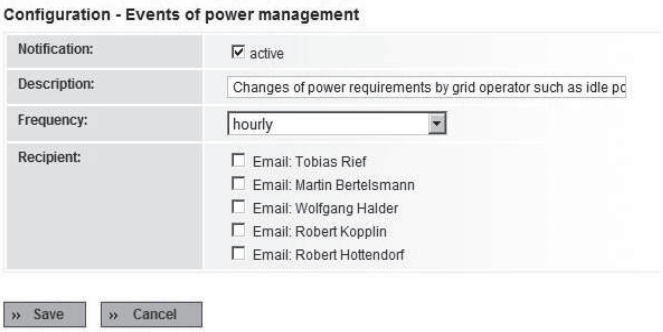
Note

When alarm is activated, PLATINUM WebMaster will send a message (e.g. e-mail or alarm contact) to activated recipients when an event occurs.

10.1 Change monitoring options

To change the monitoring option settings:

➲ Click .



Note *Settings are the same for all monitoring options.*

Settings:

➔ Notification
  ➞ Enable (☑) or disable (☐) notification when an event occurs.
➔ Description
  ➞ Description of the monitoring option.
➔ Frequency
  ➞ Select the frequency of repeated notifications for repeating events.
➔ Recipient
  ➞ Enable (☑) or disable (☐) the recipient to be notified.

Buttons:

➔ Save
  ➞ Apply settings.
➔ Cancel
  ➞ Do not apply settings.
  ➞ Leave configuration.

11 Reporting

The following reports are available:

- ➔ Daily power of entire plant
- ➔ Daily yield of inverters
- ➔ Monthly yield for entire plant
- ➔ Annual yield for entire plant
- ➔ Normalized monthly yield
- ➔ Performance ratio

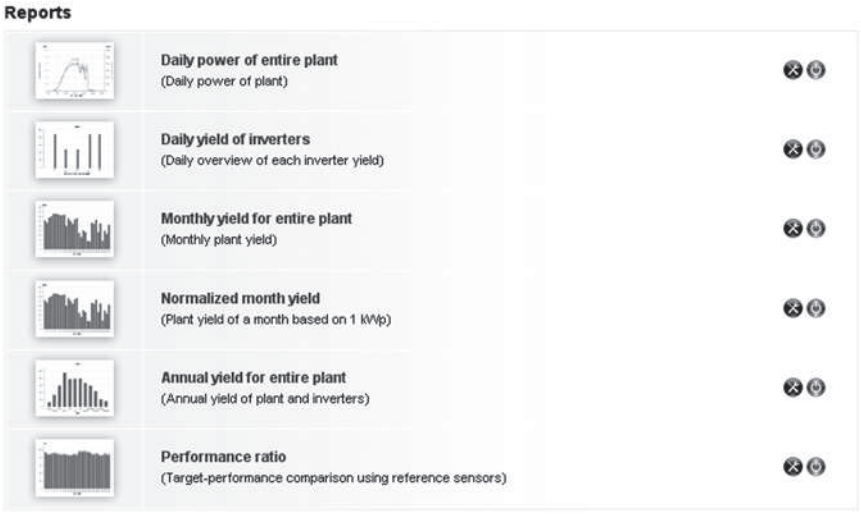
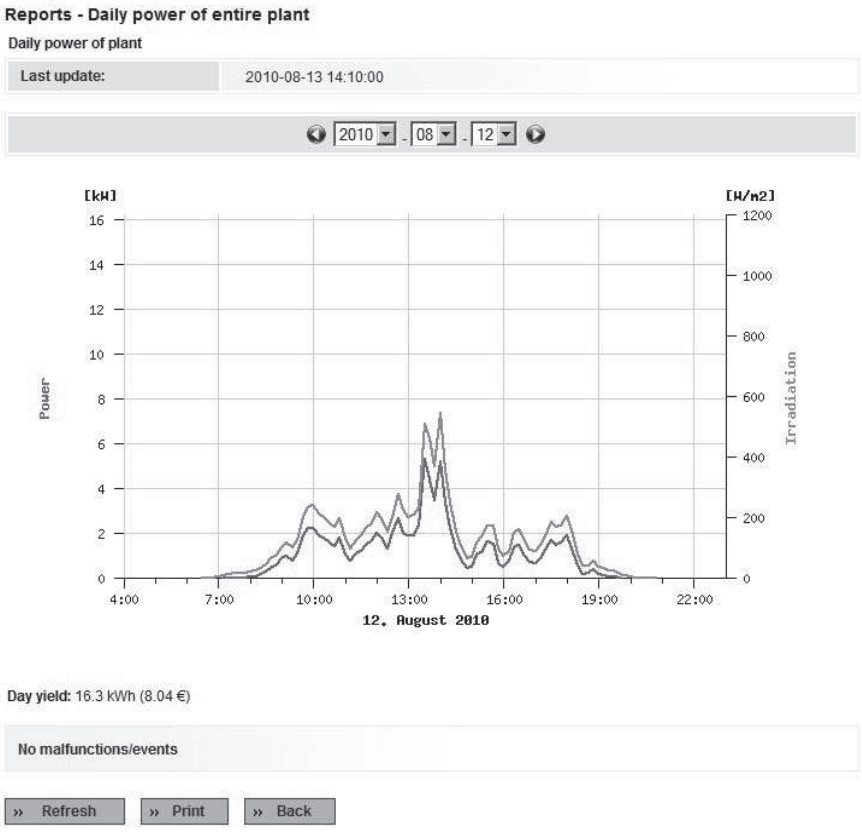

Reports
Daily power of entire plant
(Daily power of plant)
Daily yield of inverters
(Daily overview of each inverter yield)
Monthly yield for entire plant
(Monthly plant yield)
Normalized month yield
(Plant yield of a month based on 1 kWp)
Annual yield for entire plant
(Annual yield of plant and inverters)
Performance ratio
(Target-performance comparison using reference sensors)

Fig. 18 Evaluations

Buttons (Only visible after login.):

- ➔ **bold**
  - → Display all listed events.
- ➔
  - → Modify monitoring option settings.
- ➔
  - → Disable reporting. (Only visible if reporting is enabled.)
- ➔
  - → Enable reporting. (Only visible if reporting is disabled.)

11.1 Daily power of entire plant



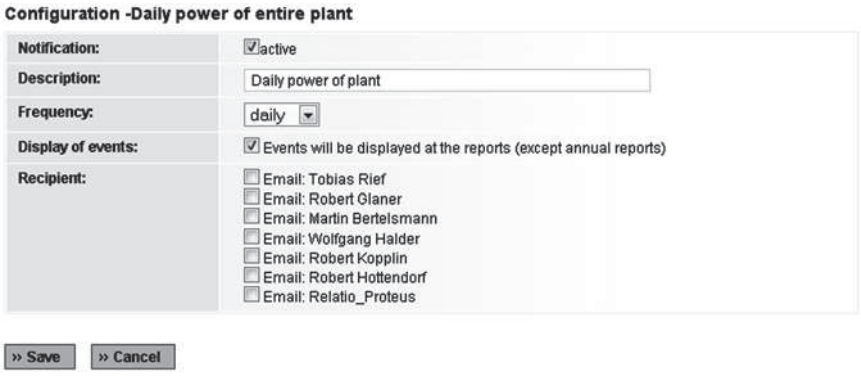
Buttons:

➔ Day, Month, or Year
  ➞ Select the report date.
    Back 1 day
    Day, Month, or Year
    Forward 1 day
➔ Update
  ➞ Demand and display current data of PLATINUM WebMaster.
➔ Print
  ➞ Print report.
➔ Back
  ➞ Return to report.

To change the report settings:

➲ Click on **Daily power of entire plant**.

➲ Click .



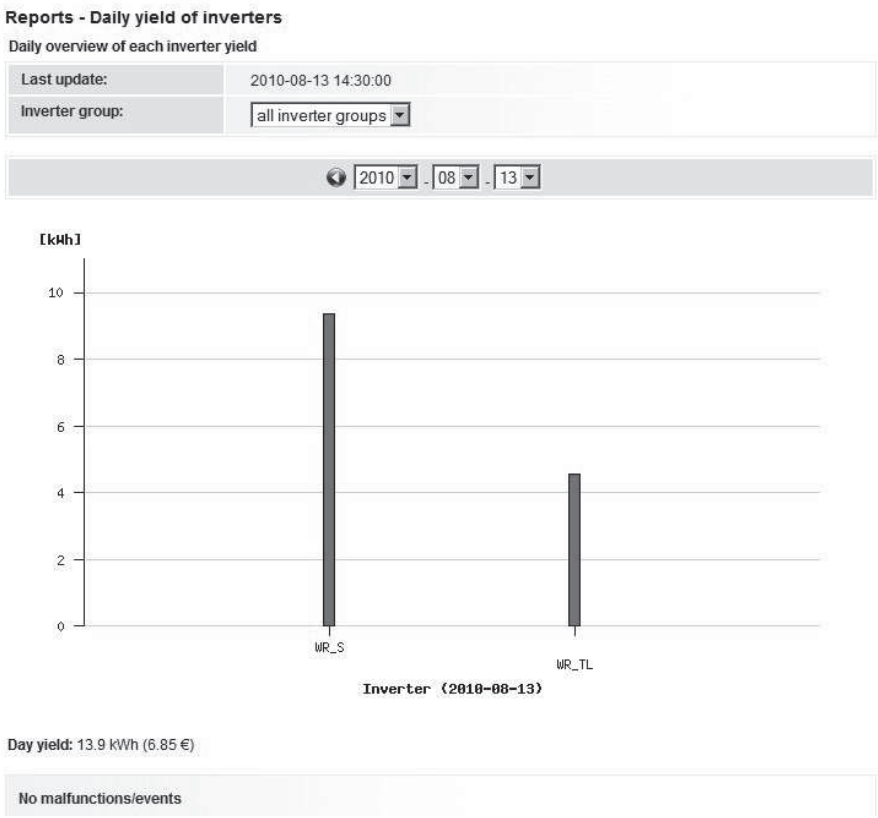
Settings:

➔ Notification
  ➞ Enable (☑) or disable (☐) notification.
➔ Description
  ➞ Description of the report.
➔ Frequency
  ➞ Select frequency of repeated notifications.
➔ Recipient
  ➞ Enable (☑) or disable (☐) the recipient to be notified.

Buttons:

➔ Save
  ➞ Apply settings.
➔ Cancel
  ➞ Do not apply settings.
  ➞ Leave configuration.

11.2 Daily yield of inverters



Buttons:

➔ Inverter Group
  ➞ Select desired group.
➔ Day, Month, or Year
  ➞ Select the report date.
    < Back 1 day
    Day, Month, or Year
    > Forward 1 day
➔ Update
  ➞ Demand and display current data from PLATINUM WebMaster.
➔ Print
  ➞ Print report.
➔ Back
  ➞ Return to report.

To change the report settings:

➲ Click on **daily yields of inverters**.

➲ Click .

Configuration -Daily yield of inverters

Notification:	☑ active
Description:	Daily overview of each inverter yield
Frequency:	daily
Display of events:	☑ Events will be displayed at the reports (except annual reports)
Recipient:	☐ Email: Tobias Rief ☐ Email: Robert Glaner ☐ Email: Martin Bertelsmann ☐ Email: Wolfgang Halder ☐ Email: Robert Kopplin ☐ Email: Robert Hottendorf ☐ Email: Relatio_Proteus

» Save » Cancel

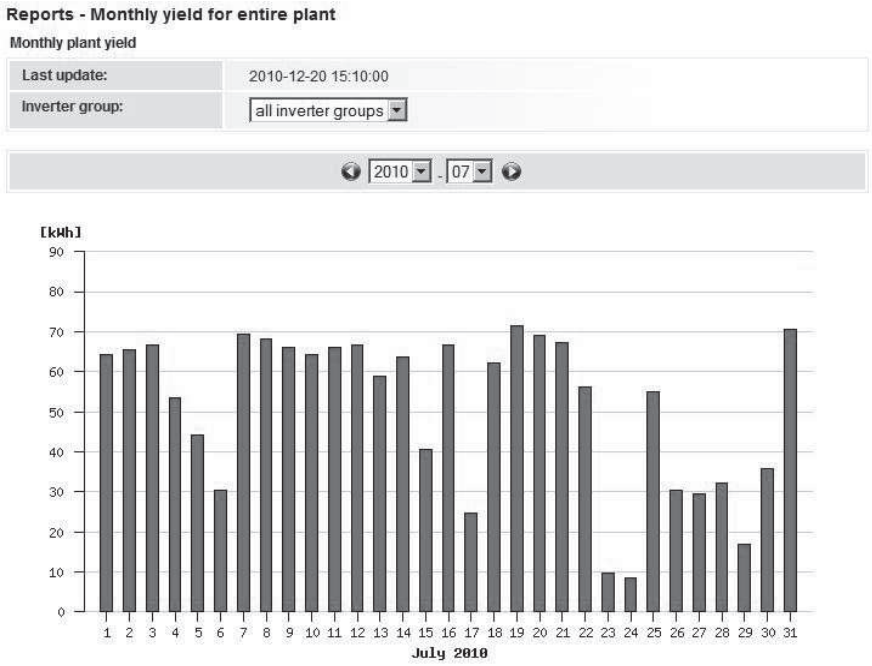
Settings:

➔ Notification
  ➙ Enable (☑) or disable (☐) notification.
➔ Description
  ➙ Description of the report
➔ Frequency
  ➙ Select frequency of repeated notifications.
➔ Recipient
  ➙ Enable (☑) or disable (☐) the recipient to be notified.

Buttons:

➔ Save
  ➙ Apply settings.
➔ Cancel
  ➙ Do not apply settings.
  ➙ Leave configuration.

11.3 Monthly yield for entire plant



Buttons:

➔ Inverter Group
  ➞ Select desired group.
➔ Month or Year
  ➞ Select the period for the report.
    < Previous month
    Month or Year
    > Next month
➔ Update
  ➞ Demand and display current data from PLATINUM WebMaster.
➔ Print
  ➞ Print report.
➔ Back
  ➞ Return to report.

To change the report settings:

➲ Click on **Monthly yield of the entire system**.

➲ Click .

Settings:

➔ Notification
  ➞ Enable (☑) or disable (☐) notification.

➔ Description
  ➞ Description of the report.

➔ Frequency
  ➞ Select frequency of repeated notifications.

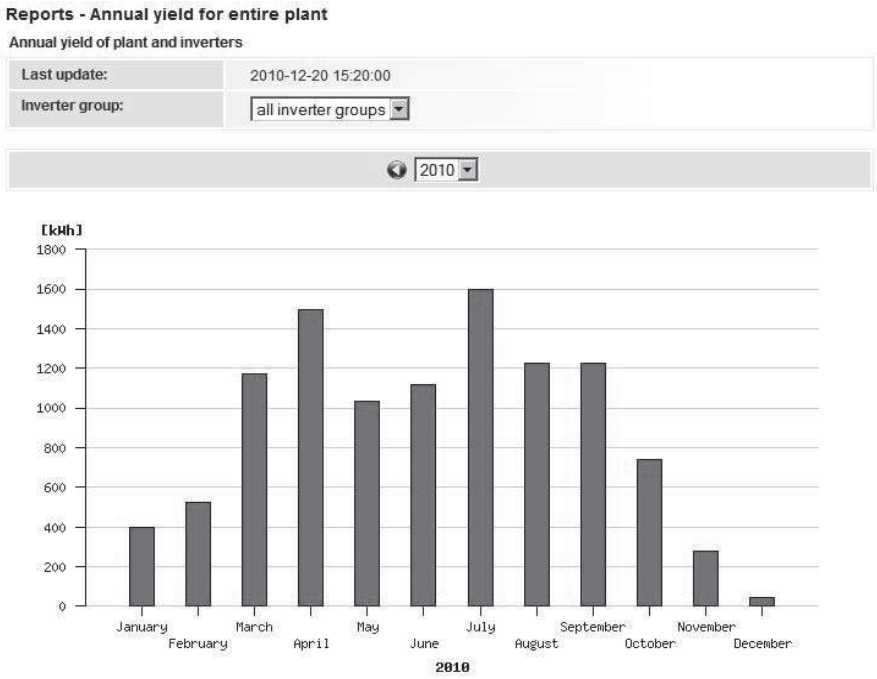
➔ Recipient
  ➞ Enable (☑) or disable (☐) the recipient to be notified.

Buttons:

➔ Save
  ➞ Apply settings.

➔ Cancel
  ➞ Do not apply settings.
  ➞ Leave configuration.

11.4 Annual yield for entire plant



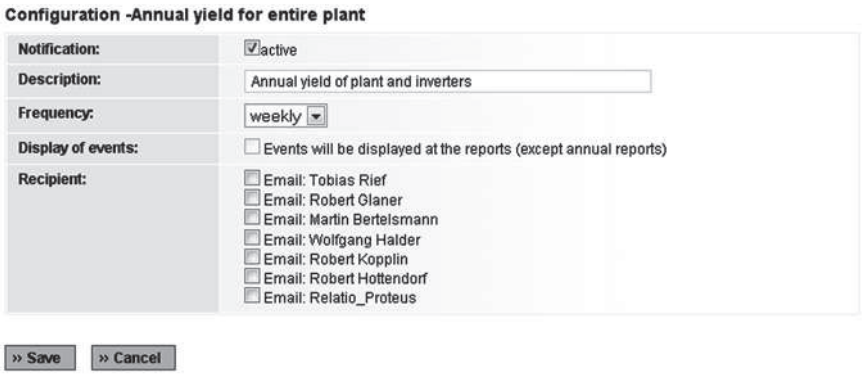
Buttons:

➔ Inverter Group
  ➞ Selectdesired group.
➔ Year
  ➞ Select the period for the report.
    Previous year
    Year
    Next year
➔ Update
  ➞ Demand and display current data of PLATINUM WebMaster.
➔ Print
  ➞ Print report.
➔ Back
  ➞ Return to report.

To change the report settings:

➲ Click on **Annual yield of entire plant**.

➲ Click .



Settings:

➔ Notification
  → Enable (☑) or disable (☐) notification.
➔ Description
  → Description of the report.
➔ Frequency
  → Select frequency of repeated notifications.
➔ Recipient
  → Enable (☑) or disable (☐) the recipient to be notified.

Buttons:

➔ Save
  → Apply settings.
➔ Cancel
  → Do not apply settings.
  → Leave configuration.

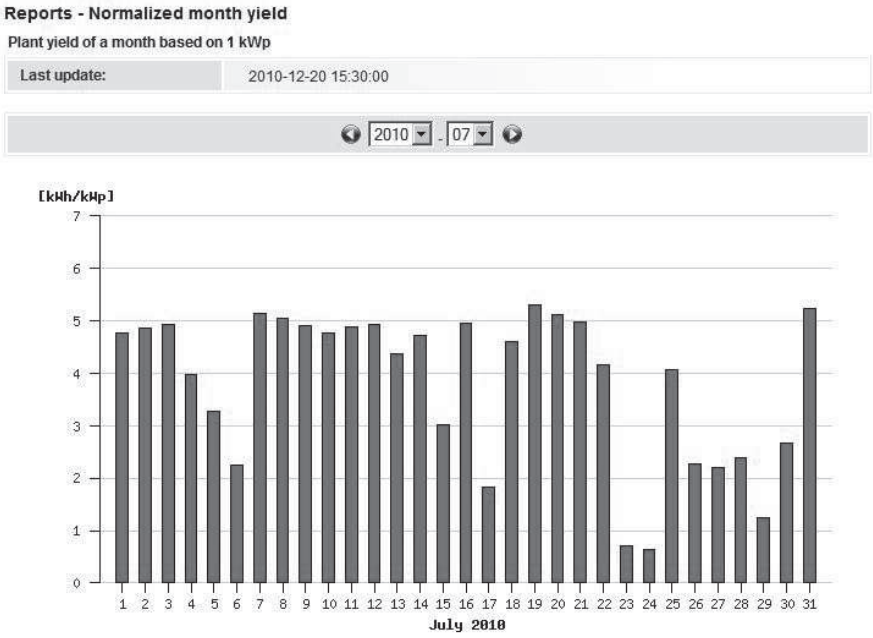
11.5 Normalized Monthly Yield of the Entire plant

The standardized monthly yield

➔ is suitable for a comparison with other solar plants.
➔ refers to the installed power.

Note

For a numerical comparison of solar systems, take into account differences (e. g. module type, direction, module angle etc.).



Buttons:

➔ Month or Year
  ➞ Select the period for the report.
    Previous month
    Month or Year
    Next month
➔ Update
  ➞ Demand and display current data from PLATINUM WebMaster.
➔ Print
  ➞ Print report.
➔ Back
  ➞ Return to report.

To change the report settings:

➲ Click on **Normalized monthly yield**.

➲ Click .

Settings:

➔ Notification
  ➞ Enable (☑) or disable (☐) notification.
➔ Description
  ➞ Description of the report
➔ Frequency
  ➞ Select frequency of repeated notifications.
➔ Recipient
  ➞ Enable (☑) or disable (☐) the recipient to be notified.

Buttons:

➔ Save
  ➞ Apply settings.
➔ Cancel
  ➞ Do not apply settings.
  ➞ Leave configuration.

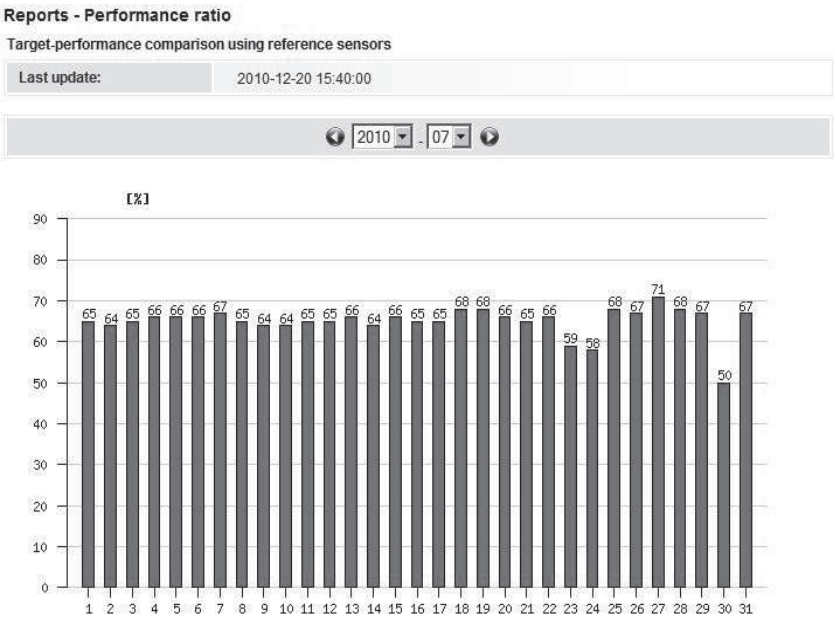
11.6 Performance ratio

Note *Menu item appears only if irradiation sensor is connected.*

Performance ratio

- ➔ characterizes the efficiency of a solar plant.
- ➔ is a comparison of the energy fed in relating to the installed power with the energy irradiated within the same period of time per m^2.
- ➔ takes into account all losses between the PV module and the connection to the mains supply (typical values: > 60%).

Note *An irradiation sensor is the precondition for determining the performance ratio.*



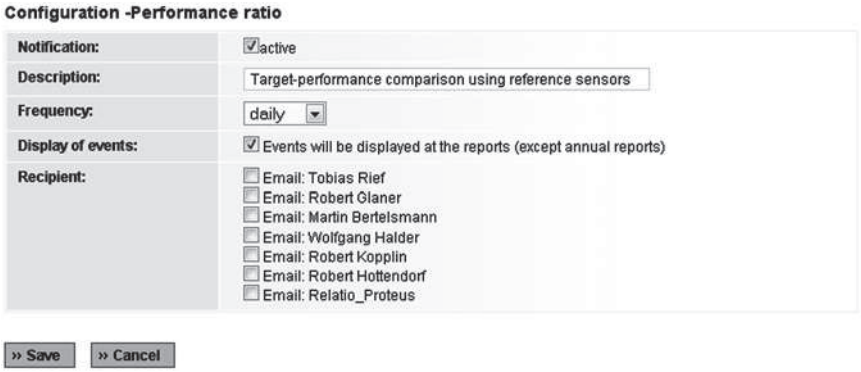
Buttons:

- ➔ Month or Year
  - ➞ Select the period for the report.
    - Previous month
    - Month or Year
    - Next month
- ➔ Update
  - ➞ Demand and display current data from PLATINUM WebMaster.
- ➔ Print
  - ➞ Print report.
- ➔ Back
  - ➞ Return to report.

To change the report settings:

➲ Click **Performance ratio**.

➲ Click .



Settings:

➔ Notification
  ➞ Enable (☑) or disable (☐) notification.
➔ Description
  ➞ Description of the report
➔ Frequency
  ➞ Select frequency of repeated notifications.
➔ Recipient
  ➞ Enable (☑) or disable (☐) the recipient to be notified.

Buttons:

➔ Save
  ➞ Apply settings.
➔ Cancel
  ➞ Do not apply settings.
  ➞ Leave configuration.

12 Configuration

Caution

Incorrect configuration may result in loss of data!

➲ Ensure that the configuration of PLATINUM WebMasters is performed by qualified persons exclusively.

Displays an overview of the system information.

Note

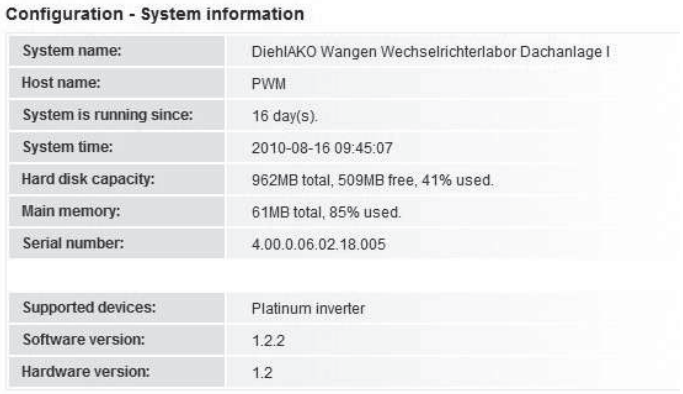
The configuration of PLATINUM WebMaster is password-protected. The configuration can be changed by the user admin exclusively. Diehl Controls recommends changing the password after the initial setup operation (see 12.6 Safety).

Factory defaults:

➔ Username = admin
➔ Password = admin

Note

30 min after the last entry with mouse or keyboard, PLATINUM WebMaster will log out automatically.


Configuration - System information
System name: DiehlAKO Wangen Wechselrichterlabor Dachanlage I
Host name: PWM
System is running since: 16 day(s).
System time: 2010-08-16 09:45:07
Hard disk capacity: 962MB total, 509MB free, 41% used.
Main memory: 61MB total, 85% used.
Serial number: 4.00.0.06.02.18.005
Supported devices: Platinum inverter
Software version: 1.2.2
Hardware version: 1.2

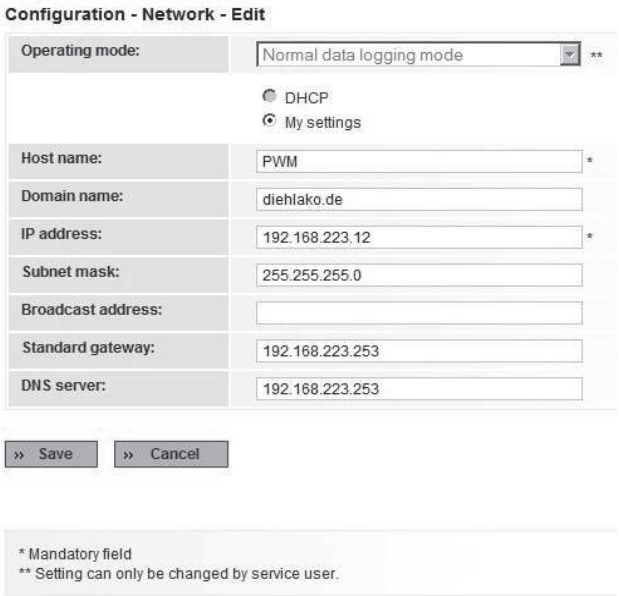
12.1 Main System

Network

Displays the current network settings.

To change the settings:

➲ Click **Edit**.



*If **My Settings** is selected, PLATINUM WebMaster can only be accessed via the IP address entered. Diehl Controls recommends that you make a note of the IP address.*

Access to PLATINUM WebMaster is not possible with a wrong IP address. Notify PLATINUM service.

Settings:

- ➔ Host name
  - ➞ Enter the host name of the network.
- ➔ Domain name
  - ➞ Enter the domain name of the network.
- ➔ IP address
  - ➞ Enter IP address of PLATINUM WebMaster.
- ➔ Broadcast address
  - ➞ Enter the broadcast address of the network.
- ➔ Subnet mask
  - ➞ Enter the subnet mask of the network.
- ➔ Standard gateway
  - ➞ Enter standard gateway of network (e. g. IP address of DSL router).
- ➔ DNS server
  - ➞ Enter the DNS server for the network.

Note *Information about the network settings is provided by the administrator of your local network.*

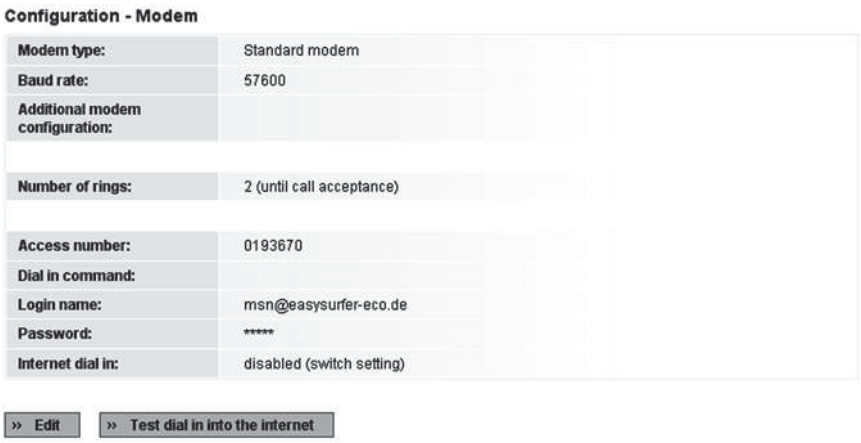
Note *rthe only possibility is to set a definite IP address. DHCP client is not possible.*

Buttons:

- ➔ Save
  - ➞ Apply settings.
- ➔ Cancel
  - ➞ Do not apply settings.
  - ➞ Leave configuration.

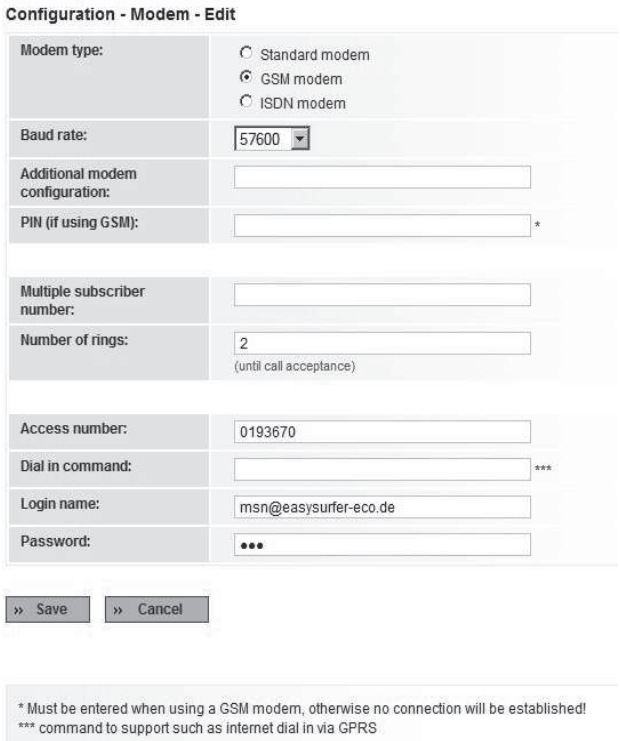
Modem

Displays the current modem settings.



To change the settings:

➲ Click **Edit**.


Configuration - Modem - Edit
Modem type: Standard modem / GSM modem / ISDN modem
Baud rate: 57600
Additional modem configuration:
PIN (if using GSM): *
Multiple subscriber number:
Number of rings: 2 (until call acceptance)
Access number: 0193670
Dial in command: ***
Login name: msn@easysurfer-eco.de
Password: •••
» Save
» Cancel
* Must be entered when using a GSM modem, otherwise no connection will be established!
*** command to support such as internet dial in via GPRS

Settings:

➔ Modem type
  ➞ Select the type of modem that is connected.
  Standard modem (analog modem), ISDN modem, GSM modem

Note *If using a GSM modem, Diehl Controls recommends a M2M contract with GPRS.*

➔ Baud rate
  ➞ Select the baud rate of the modem connection (max. 56700 for analog modems).
➔ Additional modem configuration
  ➞ Enter any additional modem configurations, for example: ATX3 – do not wait for dial tone, but dial immediately.

Note *For more AT commands, see modem manual.*

➔ PIN* (if using GSM)
  ➞ Enter PIN for dial-in with a GSM modem.

Note *The access number, login name, and password are provided by your Internet service provider.*

➔ Multiple number
  ➞ Enter ISDN number (MSN) of PLATINUM WebMaster.
➔ Number of rings
  ➞ Enter the number of rings that should be waited for before accepting an incoming call.
➔ Access number
  ➞ Enter the access number of your Internet provider for accessing the Internet.
  ➞ For extensions: Enter the access number, along with the number for accessing an outside line and the wait character **w** (e. g. 0wAccess number) if need be.
➔ add. Dial-in command (exclusively for GSM modem)
  ➞ additional dial-in commands
  ➞ depending on mobile phone service provider, e.g. the German provider T-Mobile:
  AT+CGDCONT=1,"IP","internet.t-mobile.de"

Note *For GSM modems, Internet access generally takes place through your mobile phone provider.*

➔ Login name
  ➞ Enter login for access at your internet or mobile network provider's.
➔ Password
  ➞ Enter password for access at your internet or mobile network provider's.
➔ Number of rings
  ➞ Enter the number of rings that should be waited for before accepting an incoming call.

Note

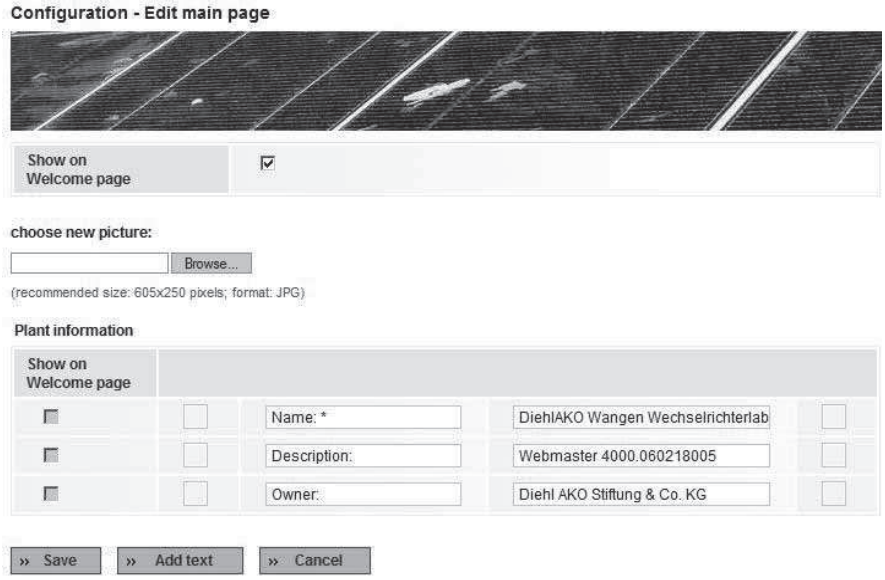
In order to enable access to the internet or an e-mail provider, ensure that the switch Internet on the PLATINUM WebMaster is set to On.

Buttons:

➔ Save
  ➞ Apply settings.
➔ Cancel
  ➞ Do not apply settings.
  ➞ Leave configuration.

Adapt Welcome Page

Customise the contents of the welcome page by inserting a picture of the system and system information.



To insert a picture:

➲ Click **Browse**.
➲ Select picture in folder list.

Buttons:

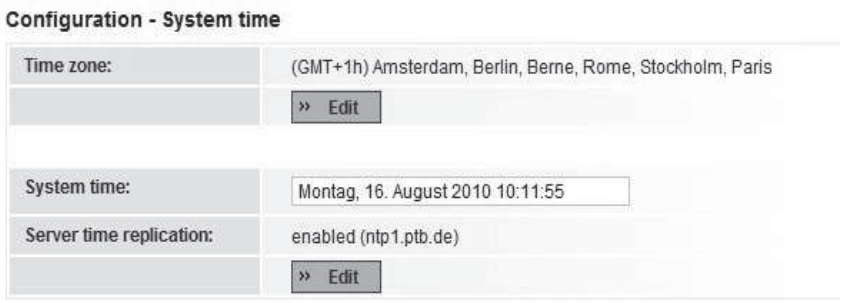
➔ +
  ➞ Insert new text before the selected line of text.
➔ -
  ➞ Delete the selected line of text.
➔ Add text
  ➞ Add a new line of text after the last line.

Note *Text can be formatted with HTML tags.*

➔ Save
  ➞ Saves any changes to the system information details and returns you to the main menu.
➔ Cancel
  ➞ Return to the main menu without making any changes to the system information.

System time

Shows system time setting for installation site.



To change set time zone: **Time zone**

➲ Click on **Edit** in Time zone.

Settings:

➔ Region/country
  ➞ Select region or country matching the installation site.
➔ Time zone
  ➞ Select time zone matching the installation site.

Buttons:

➔ Save
  ➞ Apply settings.
➔ Cancel
  ➞ Do not apply settings.
  ➞ Leave configuration.

PLATINUM WebMaster
Configuration

System time

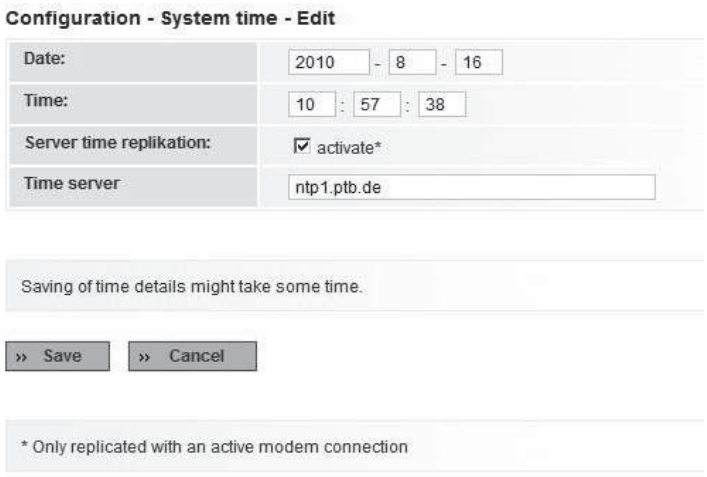
Caution

Data loss due to system time change!

➲ In case of a time deviation of more than 10 minutes, recorded data may be lost.

To change set system time:

➲ Click on **Edit** in System time.



Note

The system time is the time at the installation site.

If PLATINUM WebMaster is connected to the internet, it is possible to automatically obtain date and time from a time server as Central European Time (GMT = Greenwich Mean Time). The adaptation to the local time is effected via setting the time zone.

PLATINUM WebMaster automatically adjusts the system time for daylight savings time.

Time setting via time server is done every day at 5.00 o'clock if the network is connected.

In case of modem connection, PLATINUM WebMaster will establish the connection on its own. As soon as the connection is established, the time information will be transmitted.

Settings:

➔ Date
  ➞ Set the date manually.
➔ Time
  ➞ Set the time manually.
➔ Time synchronisation
  ➞ Enable (☑) or disable (☐) automatic synchronisation of the system time with a time server.
➔ Time server
  ➞ Enter the address of the time server.

Buttons:

➔ Save
  ➞ Apply settings.
➔ Cancel
  ➞ Do not apply settings.
  ➞ Leave configuration.

System Language

Shows the current system language settings.

To change the settings:

➲ Click **Edit**.

Settings:

➔ System language setting
  ➞ Set system language.

Buttons:

➔ Save
  ➞ Apply settings.
➔ Cancel
  ➞ Do not apply settings.
  ➞ Leave configuration.

Note

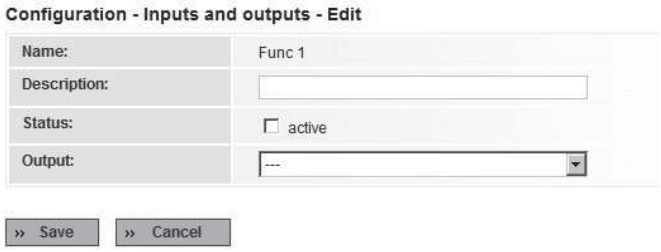
The session language selected by clicking on the flag symbols will be replaced by the set system language once the session is finished.

Inlets/outlets

Shows settings of inlets/outlets on PLATINUM WebMaster's terminal strip.

To change the settings:

➲ Click on **Edit** behind desired inlet/outlet.



Settings:

➔ Name
  ➙ Shows name of inlet/outlet.
➔ Description
  ➙ Enter description of inlet/outlet.
➔ Status
  ➙ Activate (☑) or deactivate (☐) inlet/outlet.
➔ Output
  ➙ Select outlet.

Note *It is possible to link the potential-free inlet to the alarm contact. In order to do this, connect a fault indicator to the outlet and configure it.*

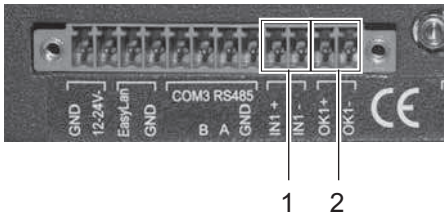


Fig. 19 Terminal strip PLATINUM WebMaster

(1) Potential-free inlet 12–24 VDC
(2) Alarm contact (outlet)

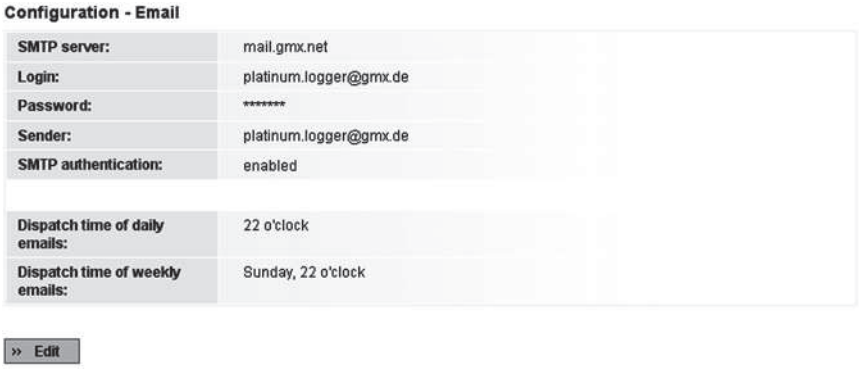
Buttons:

➔ Save
  ➞ Apply settings.
➔ Cancel
  ➞ Do not apply settings.
  ➞ Leave configuration.

12.2 Communication

E-mail service

Displays the current mail server settings for sending e-mails.



To use the e-mail service:

➲ Ensure that a valid e-mail account has been configured and is available. PLATINUM WebMaster e-mails are sent via this e-mail account.

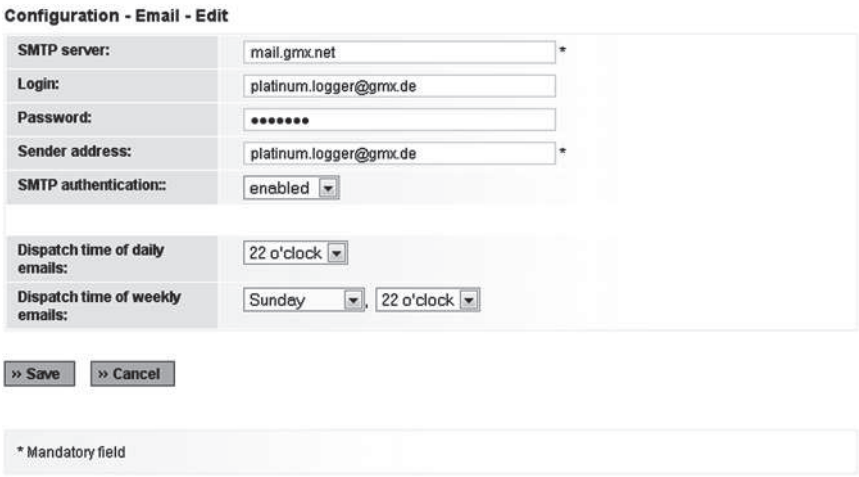
Note

The access data for the e-mail account is provided by your e-mail provider.

➲ Use exclusively e-mail providers that support SMTP authentication.

To change the settings:

➲ Click **Edit**.


Configuration - Email - Edit
SMTP server: mail.gmx.net *
Login: platinum.logger@gmx.de
Password: •••••••
Sender address: platinum.logger@gmx.de *
SMTP authentication:: enabled
Dispatch time of daily emails: 22 o'clock
Dispatch time of weekly emails: Sunday 22 o'clock
» Save » Cancel
* Mandatory field

Settings:

Note *Information about the SMTP server, login, password, and authentication type are provided by your e-mail provider.*

- ➔ SMTP server
  - → Enter the address of the outgoing mail server.
- ➔ Login
  - → Enter the login for logging in with your e-mail provider.
- ➔ Password
  - → Enter the password for logging in with your e-mail provider.

Note *For security reasons, each character is replaced by an * when you enter your password.*

- ➔ Authentication type
  - → Select SMTP in order to send e-mails only after successful authentication.

Note *SMTP is selected by default.*

- ➔ Sending time for e-mails (daily)
  - → Select time for sending e-mails.
- ➔ Sending time for e-mails (weekly)
  - → Select day and time for sending e-mails.

Buttons:

- ➔ Save
  - → Apply settings.
- ➔ Cancel
  - → Do not apply settings.
  - → Leave configuration.

Note *In order to enable access to the internet or to an e-mail provider, ensure that the internet switch is set to ON.*

PLATINUM SolarPortal

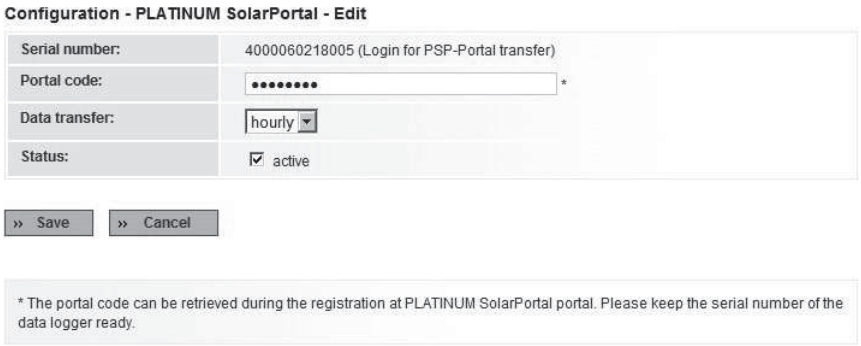
Shows current settings for access to PLATINUM SolarPortal.

PLATINUM SolarPortal provides remote monitoring via internet.

If PLATINUM SolarPortal is activated, PLATINUM WebMaster will send data of PLATINUM inverters to the PLATINUM SolarPortal.

To change the settings:

➲ Click **Edit**.


Configuration - PLATINUM SolarPortal - Edit
Serial number:
4000060218005 (Login for PSP-Portal transfer)
Portal code:
*
Data transfer:
hourly
Status:
active
» Save
» Cancel
* The portal code can be retrieved during the registration at PLATINUM SolarPortal portal. Please keep the serial number of the data logger ready.

Settings:

➔ Serial number
  ➞ Enter serial number.
➔ Portal code
  ➞ Enter portal code.

Note

PLATINUM Sales will provide a portal code after the registration at PLATINUM SolarPortal.

Have PLATINUM WebMaster set up by the PLATINUM service before installing it in the solar system.

➔ Data transfer
  ➞ Select interval for data transfer.
➔ Status
  ➞ Activate (☑) or deactivate (☐) PLATINUM SolarPortal.

Buttons:

- ➔ Save
  - ➞ Apply settings.
- ➔ Cancel
  - ➞ Do not apply settings.
  - ➞ Leave configuration.

Note

In order to enable access to the internet or to an e-mail provider, ensure that the internet switch is set to ON.

Message recipient

Administration of recipients who will be sent reports and notifications when an event occurs.

Messages can be sent to:

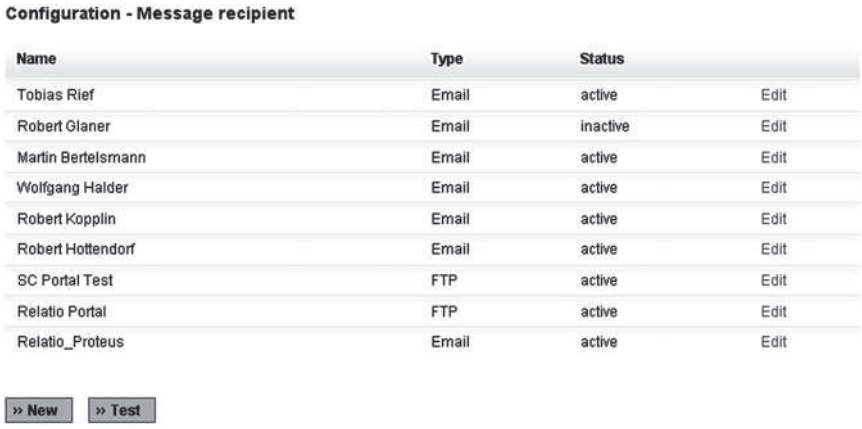
- ➔ E-mail address
- ➔ Short e-mail
- ➔ Alarm contact
- ➔ FTP

Note

Short e-mails are suitable for sending to mobile phones. When sending a short e-mail, the information will be sent in the message's subject heading. Your mobile phone or e-mail provider must activate this option for you. Check the features offered by the e-mail provider.

The alarm contact is a message recipient that is activated if an event occurs. If alarm contact is selected, PLATINUM WebMaster will, when the corresponding event occurs, show a message on the welcome page which must be acknowledged.

Receiving e-mails on a mobile phone is subject to charges.

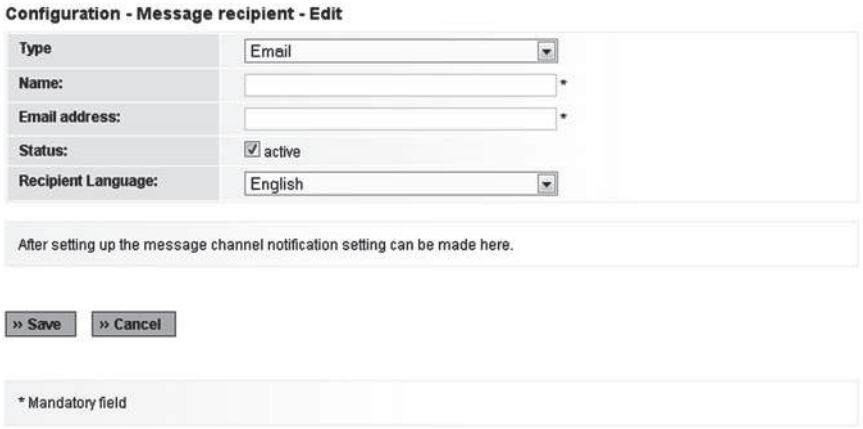


PLATINUM WebMaster
Configuration

Create message recipient

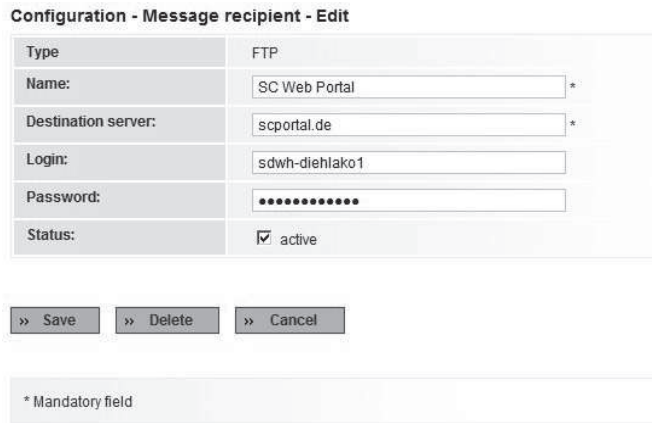
To create a new message recipient:

➲ Click **New**.



Message type Alarm contact:

Message type FTP:



Settings:

➔ Type
  ➞ Select the message type.
➔ Name
  ➞ Enter the recipient's name.
➔ E-mail address (exclusively for message type E-mail or Short e-mail)
  ➞ For type e-mail: Enter the recipient's e-mail address.
  ➞ For type Short e-mail: Enter the recipient's e-mail address.

Note

The mobile phone provider provides the e-mail address of the mobile phone.

➔ Alarming period (for alarm contact message type exclusively)
  ➞ Enter the duration of the alarm.
➔ Destination server (for FTP message type exclusively)
  ➞ Enter FTP server address.
  ➞ Enter login and password.
➔ Status
  ➞ Enable (☑) or disable (☐) the recipient.
➔ Language (for e-mail or short e-mail message types exclusively)
  ➞ Select the language to be used for the recipient.

Buttons:

➔ Save
  ➞ Apply settings.
➔ Cancel
  ➞ Do not apply settings.
  ➞ Leave configuration.

Edit message recipient

To edit a message recipient:

➲ Select the recipient.
➲ Click **Edit**.

Settings:

➔ Type
  ➞ Select the message type.
➔ Name
  ➞ Enter the recipient's name.
➔ E-mail address (exclusively for message type E-mail or Short e-mail)
  ➞ For type e-mail: Enter the recipient's e-mail address.
  ➞ For type Short e-mail: Enter the recipient's e-mail address.

Note

The mobile phone provider provides the e-mail address of the mobile phone.

➔ Alarming period (for alarm contact type only)
  ➞ Enter the duration of the alarm.
➔ Status
  ➞ Enable (☑) or disable (☐) the recipient.
➔ Language (for e-mail or short e-mail types exclusively)
  ➞ Select the language to be used for the recipient.

Buttons:

➔ Save
  ➞ Apply settings.
➔ Cancel
  ➞ Do not apply settings.
  ➞ Leave configuration.

To delete a message recipient:

➲ Select the recipient.
➲ Click **Delete**.

Check e-mail sending

To check the e-mail sending:

➲ Click **Test**.

➲ Enable (☑) or disable (☐) desired message recipients.
➲ Click **Test**.

Note

It can take up to 10 minutes until the message reaches the recipient.

12.3 FTP upload

Allows settings for FTP upload.

Note

To allow an FTP upload, it is necessary to configure an FTP server as the message recipient.

FTP-Upload
Inverter details (Replication of the inverter data onto a FTP-Server)
Sensor data (Replication of the sensor data into FTP-Server)

To change the settings:

➲ Click on behind desired item.

Settings:

➔ Replication
  ➞ Activate (☑) or deactivate (☐) FTP upload.
➔ Description
  ➞ Description of FTP upload.
➔ Frequency
  ➞ Frequency of FTP upload.
➔ FTP
  ➞ Select FTP server.

Buttons:

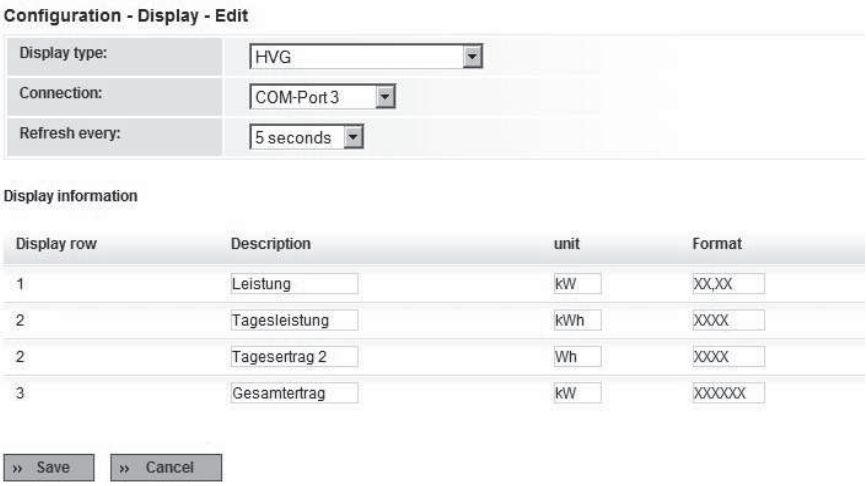
➔ Save
  ➞ Apply settings.
➔ Cancel
  ➞ Do not apply settings.
  ➞ Leave configuration.

12.4 Display

Allows settings for a connected large-format display.

To change the settings:

➲ Click **Edit**.



➔ Display type
  ➙ Select display type.
➔ Connection
  ➙ Select connection.
➔ Address (exclusively for remote display connection)
  ➙ Enter IP address of serial ethernet converter (without prefix http://) or URL.
➔ Port (exclusively for remote display connection)
  ➙ Enter port setting of serial ethernet converter (e. g. port: 4000)
➔ Refresh every
  ➙ Select interval for update.

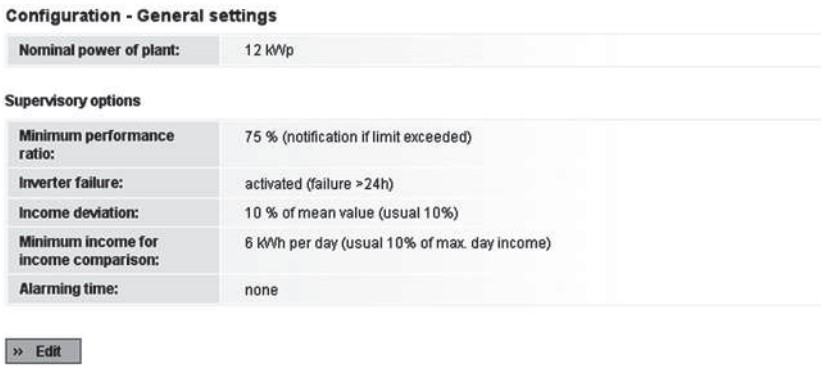
Buttons:

➔ Save
  ➞ Apply settings.
➔ Cancel
  ➞ Do not apply settings.
  ➞ Leave configuration.

12.5 Solar Plant

General settings

Displays information and monitoring functions for the inverter station.



PLATINUM WebMaster calculates:

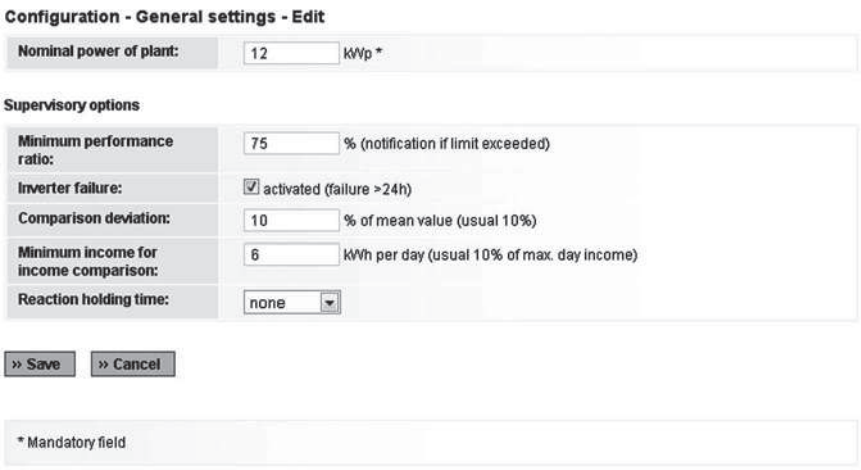
➔ the previous day's yield for each connected inverter.
➔ a weighted mean taking into consideration the maximum DC power output (peak output) of each inverter.
➔ whether there is a reduced yield for each connected inverter.
➔ the percentage deviation for each connected inverter.

Note

The procedures described assume identical irradiation behaviour for all inverters.

To change the settings:

➲ Click **Edit**.



Settings:

➔ Nominal power of plant
  ➞ Enter the sum of the powers of the connected PV modules.
➔ Minimum performance ratio
  ➞ Enter minimum performance ratio.

Note *Minimum performance ration can only be entered if sensor is connected.*

➔ Inverter failure
  ➞ Enable (☑) or disable (☐) alarm for inverter failure.
➔ Comparison deviation
  ➞ Percentage deviation in the daily yield of an inverter from the weighted mean daily yield of all inverters.

Note *To prevent unnecessary alarms, Diehl Controls recommends setting the comparison deviation between 10 % and 15 %.*

➔ Minimum income for income comparison
  ➞ Enter the minimum yield to prevent incorrect alarms on days with very limited solar radiation.
➔ Reaction holding time
  ➞ Enter the holding time before an alarm is issued.

Note *Some events occur only temporarily. If the reaction holding time is shorter than the event itself, PLATINUM WebMaster will not alarm.*

Buttons:

➔ Save
  ➞ Apply settings.
➔ Cancel
  ➞ Do not apply settings.
  ➞ Leave configuration.

Inverter

Displays the inverters in the inverter network.

Enables

➔ Search for new inverters in the inverter network.
➔ Assigning inverters to groups.

Note

Diehl Controls recommends assigning the inverters to groups e. g. if parts of the system are oriented towards different directions (east, west, south) or divided onto several roofs, or if different PV modules or inverter types are used.

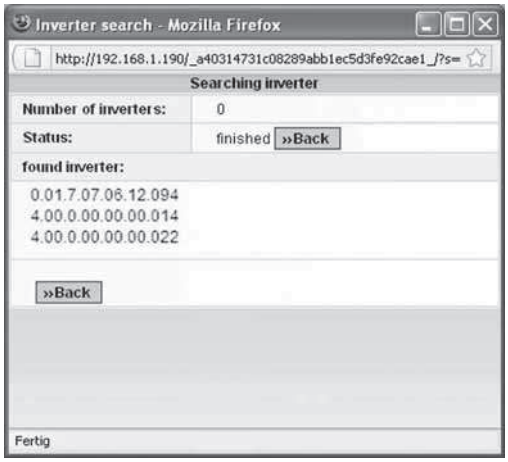
Search inverter

To search the network for new inverters:

➲ Click **Search**.

PLATINUM WebMaster
Configuration

PLATINUM WebMaster shows serial numbers of detected inverters.



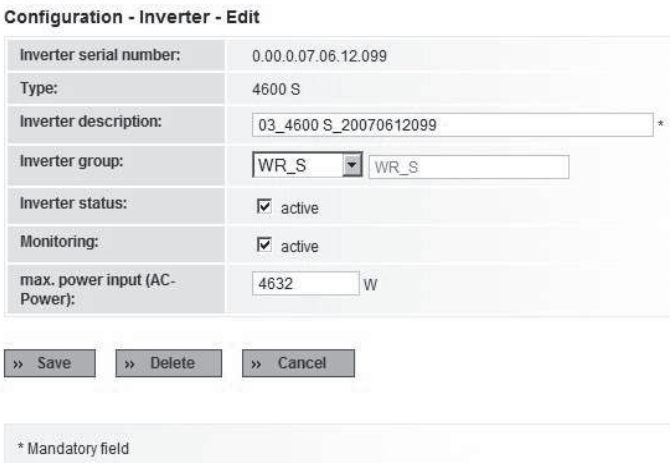
➔ Number of inverters
  ➞ Shows number of detected inverters in PLATINUM network.
➔ Status
  ➞ Shows status of inverter search.
➔ Found inverter
  ➞ Shows serial numbers of detected inverters in PLATINUM network.

Settings
Change inverter

To change settings for assigning and naming an inverter:

➲ Search for inverters.
➲ Click on desired inverter in inverter list.
➲ Change settings as desired.
➲ Search for inverters again.

PLATINUM WebMaster transmits changed device list



Note

The serial number cannot be modified.

Letters and numbers can be used for the name (e. g. "1" or "outside left").

Short names make the information easier to read.

Configure each inverter separately.

Settings:

- ➔ Inverter description
  - ➞ Enter the description for the inverter.
- ➔ Inverter group
  - ➞ Assign inverters to a group.
  - ➞ Enter a group name to create a new group.
- ➔ Inverter status
  - ➞ Enable (☑) or disable (☐) the inverter.
    Active inverters are displayed and monitored in the system state.
- ➔ Monitoring
  - ➞ Enable (☑) or disable (☐) the low daily yield alarm.
- ➔ max. feed power (AC power)
  - ➞ Enter the maximum power output of the inverter.
    Entering 0 disables yield monitoring for the inverter.

Buttons:

- ➔ Save
  - ➞ Saves the inverter settings. Returns you to the overview.
- ➔ Cancel
  - ➞ Returns you to the overview without saving any changed settings.
- ➔ Delete
  - ➞ Restores the inverter's settings to the default settings.

Sensors

In order to record the solar irradiation power in the spot where the solar plant is located, it is possible to connect an irradiation sensor and to visualize the data via PLATINUM WebMaster.

Note *Menu item Sensors is exclusively available if a sensor is connected.*

For further information on sensors and their installation and configuration, observe installation and operating manual for PLATINUM SensorKit.

Control center

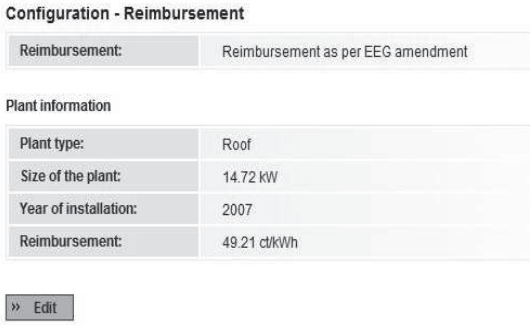
It is possible to interconnect PLATINUM WebMasters in order to monitor up to 500 PLATINUM inverters. For this, one PLATINUM WebMaster has to be configured as the control center.

Note *Menu item Control Center will be available exclusively on the PLATINUM WebMaster acting as control center.*

Control center and client are confugured at the factory. Indicate desired option when ordering.

Reimbursement

Shows current reimbursement settings.



In Germany, energy fed in from solar plants is reimbursed according to the EEG. PLATINUM WebMaster calculates the reimbursement and indicates the amount of money.

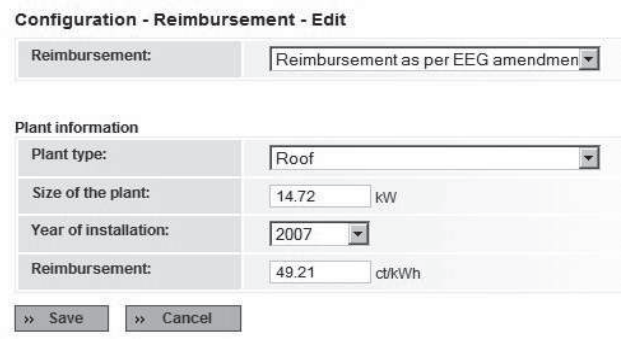
Note

The reimbursement in Germany depends on the year of installation, the plant type and the plant power. From this information, PLATINUM WebMaster calculates the current reimbursement per kWh.

The meter in the inverter is not calibrated. Measuring errors are possible and will be shown by PLATINUM WebMaster.

To change the settings:

➲ Click **Settings**.



Settings:

➔ Reimbursement
  → Select reimbursement type.
➔ Plant type
  → Select system type.
➔ Size of the plant
  → Enter system power.
➔ Year of installation
  → Select year of start-up.

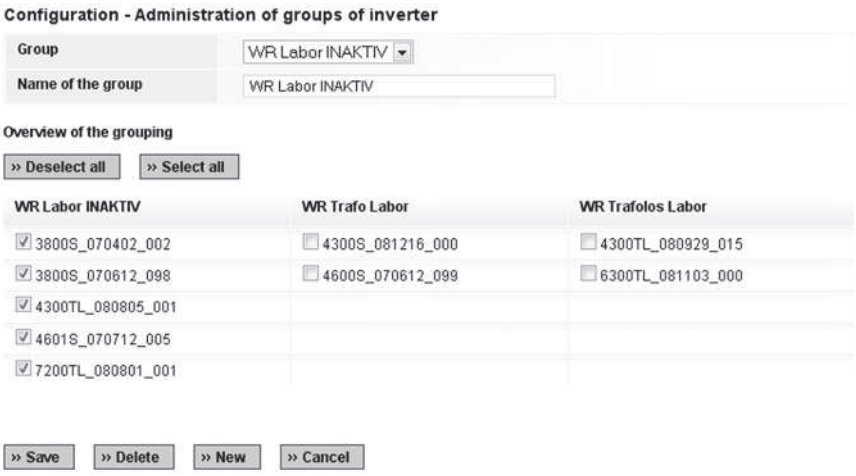
Buttons:

➔ Save
  ➞ Apply settings.
➔ Cancel
  ➞ Do not apply settings.
  ➞ Leave configuration.

Inverter Group Administration

Note

*Inverters can be combined into groups. As a factory default, all inverters are assigned to the group **ungrouped**.*

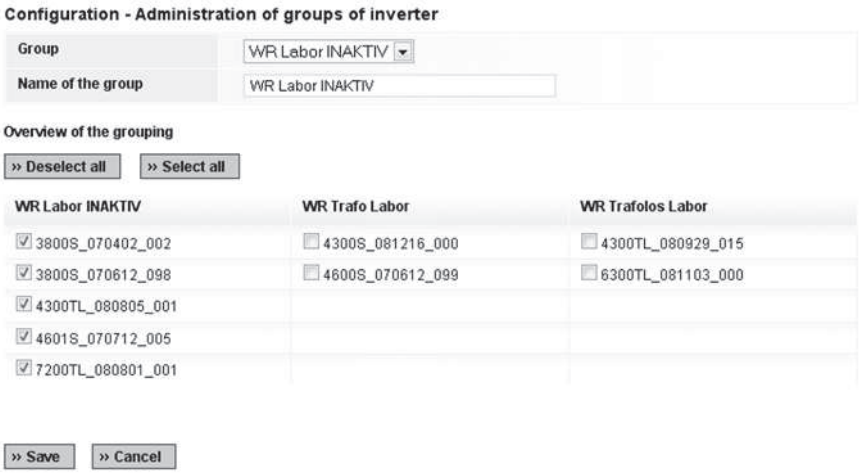


Buttons:

➔ Save
  ➞ Apply settings.
➔ Delete
  ➞ Delete group from system.
  ➞ Assigned inverters are displayed as ungrouped.
➔ Cancel
  ➞ Do not apply settings.
  ➞ Leave configuration.

To change the settings:

➲ Click on the **inverter number** of the desired inverter .



Buttons:

➔ Select all
→ Enable all inverters (☑).
➔ Deselect all
→ Disable all inverters (☐).
➔ Save
→ Apply settings.
➔ Cancel
→ Do not apply settings.
→ Leave configuration.

Group inverters

To assign an inverter to a group or to remove it from a group:

➲ Select group or create a new group.
➲ Enable (☑) or disable (☐) inverter in group.

Create new group

To create a new group:

➲ Click **New**.
➲ Enter group name.

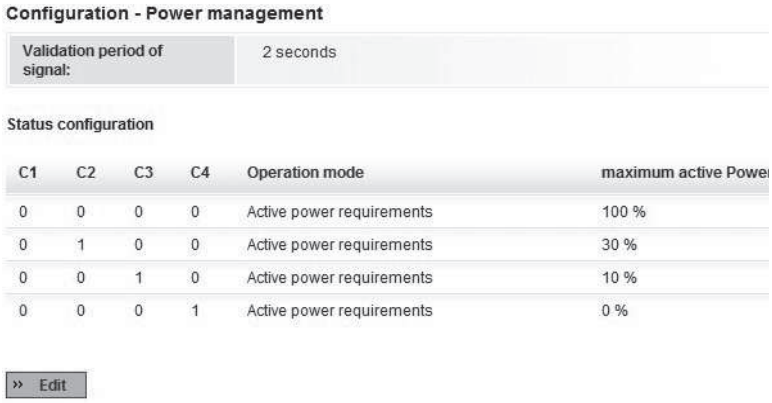
New group is created.

Note

If there is no inverter in a group, the group will be deleted.

Perfomance management

Allows setting the performance management according to EEG.



Configuration - Power management

Validation period of signal:	2 seconds

Status configuration

C1	C2	C3	C4	Operation mode	maximum active Powe
0	0	0	0	Active power requirements	100 %
0	1	0	0	Active power requirements	30 %
0	0	1	0	Active power requirements	10 %
0	0	0	1	Active power requirements	0 %

» Edit

To change the settings:

➲ Click **Edit**.
➲ Observe installation and operating manual of PLATINUM PowerCommander.

12.6 Safety

Public Access

Enables settings for public access to PLATINUM WebMaster web interface.

If public access is activated, it is possible to show the following without login:

- ➔ Welcome page
- ➔ System state
- ➔ Reports

Configuration - public access
The user interface can be used without login if the public access is set to active. Is the public access deactivated the user interface will be display after successful login.
Public access:
active
» Deactivate
» Cancel

Buttons:

- ➔ Activate
  - → Allow public access to PLATINUM WebMaster web interface.
- ➔ Deactivate
  - → Prohibit public access to PLATINUM WebMaster web interface.
- ➔ Cancel
  - → Returns you to the overview without saving any changed settings.

Passwords

Password Management for System Administration.

To change the password:

➲ Click **Edit**.

Settings:

➔ User name
  ➞ Enter usename.
➔ Password
  ➞ Enter new password.
➔ Password confirmation
  ➞ Enter new password again.

Note

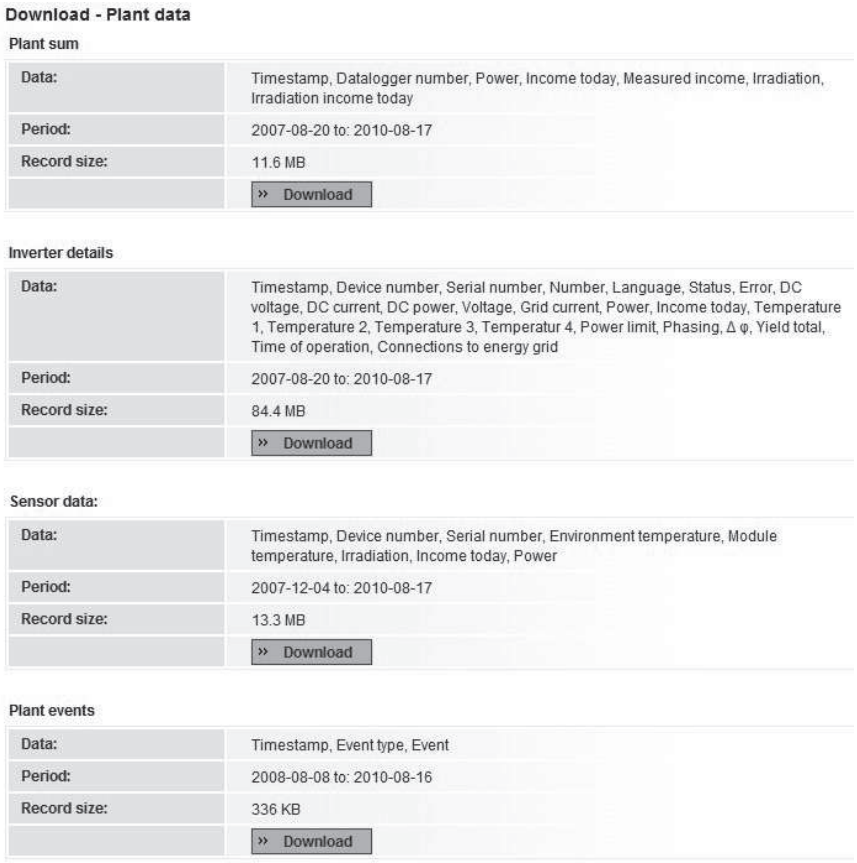
Diehl Controls recommends that you make a note of the password and store it in a safe place.

The user admin can change the password for the users admin and user.

13 Download

Download enables retrieving and local saving of data saved in PLATINUM WebMaster.

➲ Ensure that popup blockers are deactivated in the browser.



Note

PLATINUM WebMaster's storage capacity is limited. To prevent data loss, Diehl Controls recommends that you retrieve the stored data and save them locally on a regular basis.

Memory requirements per inverter and day about 10 kByte.

The following reports are available for download:

➔ Sensor data (if irradiation sensor is connected)
➔ Plant sum
➔ Inverter details
➔ Plant events

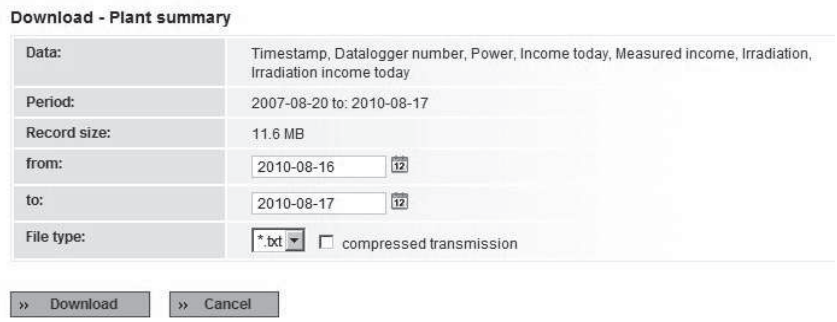
To retrieve data:

➲ Click on the desired report.

The dialog for selecting the download criteria is displayed.

Use the download criteria to limit the download to the information that you require.

13.1 System sum



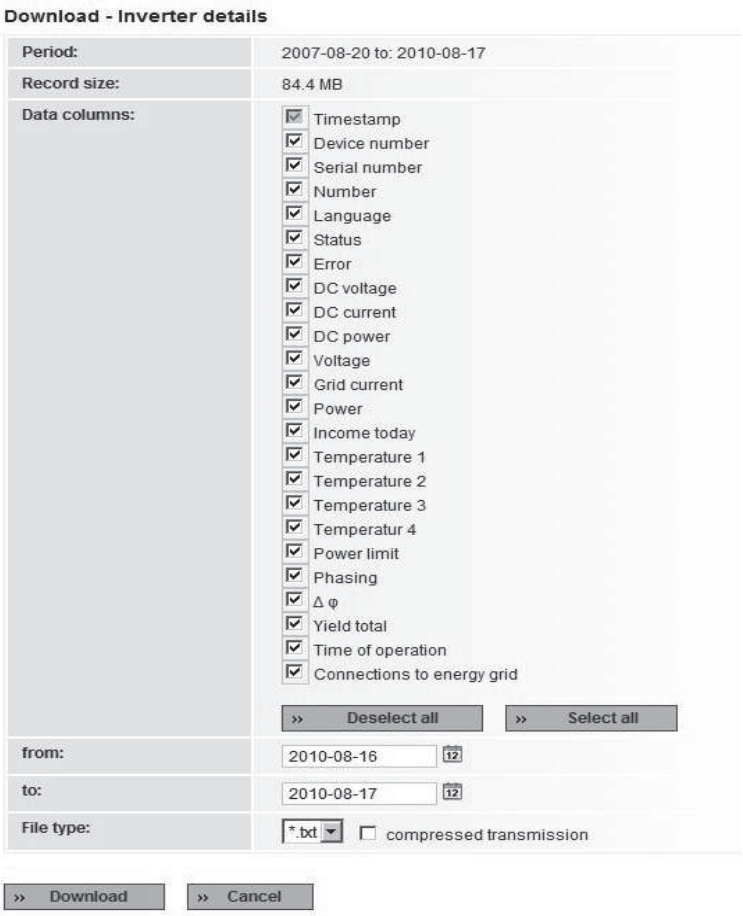
Settings:

➔ Data
  ➞ Displays the selected data columns.
➔ Period
  ➞ Shows period of data available for download.
➔ Record size
  ➞ Displays the size of the download.
➔ from
  ➞ Select the starting date for the report period.
➔ to
  ➞ Select the end of the report period.
➔ File type
  ➞ Select the file type for the download.

To start the download:

➲ Click **Download**.

13.2 Inverter details



Settings:

- ➔ Data
  - ➞ Displays the selected data columns.
- ➔ Period
  - ➞ Shows period of data available for download.
- ➔ Record size
  - ➞ Shows size of record file.

Note

The size of the record file depends on the selected report period. If record period and report period are identical, the size of the record file corresponds to the displayed value.

➔ Data columns
  ➞ Add (☑) or remove (☐) data columns from the download.
  ➞ Device number: internal inverter number
  ➞ Serial number: inverter serial number
  ➞ Number: Bus number of inverter in PLATINUM network
  ➞ Error: Event code of inverters
  ➞ Temperature 1: transformer or inductor temperature (depending on PLATINUM S or TL)
  ➞ Temperature 2: IGBT temperature
  ➞ Temperature 3: inside temperature
  ➞ Temperature 4: temperature in user interface
  ➞ Phasing: Indicates on which phase the inverter is feeding (1-3: L1-L3; 4: three-phase).
  ➞ Delta phi: phase shift angle
  ➞ Connections to power supply system: Indicates how often inverter has been connected to power supply system and feeding (exclusively for central inverters).

Note *For PLATINUM inverter TL, Data columns Temperature 1 – Temperature 4 will differ from diagram above.*

➔ from
  ➞ Select the starting date for the report period.
➔ to
  ➞ Select the end of the report period.
➔ File type
  ➞ Change of file type is not possible.

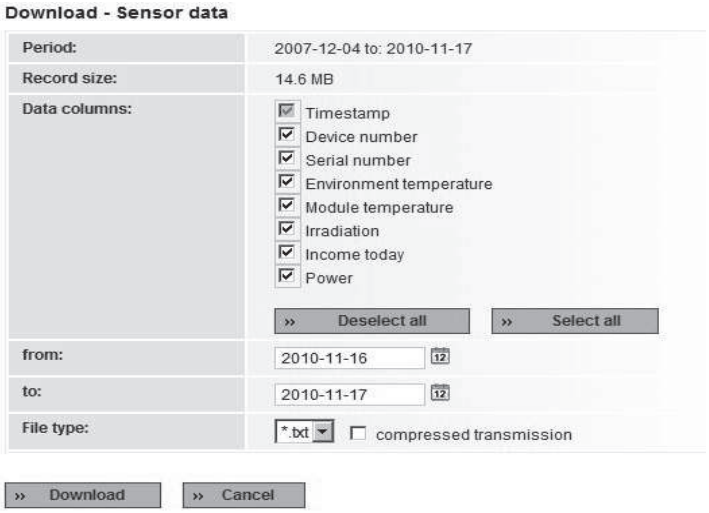
Note *Data are downloaded as a text file. Data are separated by tabulators. This enables export e. g. into Ecxel table.*

➔ Compressed transmission
  ➞ Enable (☐) or disable (☑) compressed data transmission.

To start the download:

➲ Click **Download**.

13.3 Sensor Data



Settings:

➔ Period
  ➞ Shows period of data available for download.
➔ Record size
  ➞ Displays the size of the download.
➔ Data columns
  ➞ Add (☑) or remove (☐) data columns from the download.
➔ from
  ➞ Select the starting date for the report period.
➔ to
  ➞ Select the end of the report period.
➔ File type
  ➞ Change of file type is not possible.

Note

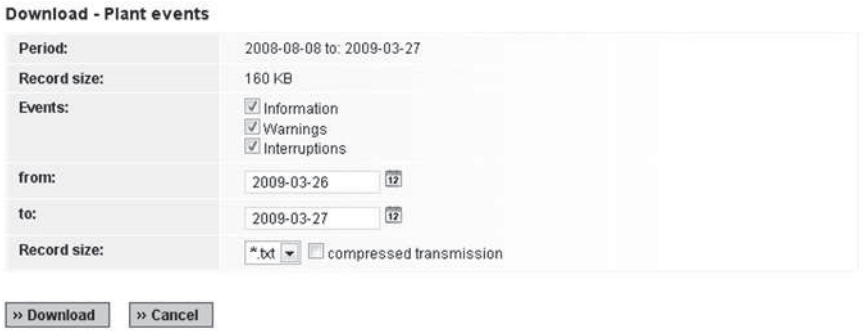
Data are downloaded as a text file. Data are separated by tabulators. This enables export e. g. into Excel table.

➔ Compressed transmission
  ➞ Enable (☐) or disable (☑) compressed data transmission.

To start the download:

➲ Click **Download**.

13.4 System events



Settings:

➔ Data
  ➞ Displays the selected data columns.
➔ Period
  ➞ Shows period of data available for download.
➔ Record size
  ➞ Displays the size of the download.
➔ Events
  ➞ Add (☑) or remove (☐) events from the download.
➔ from
  ➞ Select the starting date for the report period.
➔ to
  ➞ Select the end of the report period.
➔ File type
  ➞ Change of file type is not possible.

Note

Data are downloaded as a text file. Data are separated by tabulators. This enables export e. g. into Excel table.

➔ Compressed transmission
  ➞ Enable (☐) or disable (☑) compressed data transmission.

To start the download:

➲ Click **Download**.

14 Documentation

To open the installation and operating manual:

➲ Click **Manual**.

15 Software Update

The technical concept of PLATINUM WebMaster allows automatical software updates via internet.

Software updates appear at irregular intervals.

PLATINUM WebMaster checks independently for available updates.

Prerequisites:

➔ PLATINUM WebMaster is connected to internet.

Note

A weekly update is configured by default. It can be activated exclusively by the PLATINUM service.

16 Disposal

➲ Dispose of packaging and consumed parts according to the rules and regulations applicable in the country where the unit was installed.
➲ Dispose of PLATINUM WebMaster at a recycling point for electrical or electronic products.
➲ Do not put PLATINUM WebMaster into the household waste.

17 Standards and Approvals

PLATINUM WebMaster meets the requirements of the relevant CE guidelines.

18 Technical Data

Processor	Pentium Architecture
Main memory	64 MB RAM
Operating system	Linux
COM ports	1x RS485 or RS232 via connector strip 1x RS485 via RJ45 duplicate sockets
Interfaces	LAN (ethernet 10/100 MBit full duplex) Modem or GSM connection Sub-D9 EasyLan
Signals	Internal speaker LED for event indication on top (6x green, 2x red)
Data memory	Compact Flash® Adapter Type I inside the housing for operating system and data storage
Housing	2-part, metal housing without fan for mounting on mounting rails (IP 20)
Weight	800 g net weight (without accessories and external power supply unit)
Ambient humidity	In dry interiors or electrical cabinets
Operating temperature	0 to 50 °C
Dimensions (W x H x D)	6.89 in x 6.10 in x 1.77 in incl. mounting rail adapter on the backside, plus connector strips
Alarm contact	Potential-free outlet, max. 40 V DC
Power supply	External power supply unit: 100 - 240 V AC; 50 - 60 Hz; 12 to 24 V DC; 0.5 A (power 6 W) (included in scope of delivery)